Educator Literacy Concerning Elementary Students' Anxiety and Depressive Disorders

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Ten to 20 percent of children and adolescents meet criteria for a mental disorder over the course of their lives. Though educators are omnipresent in nearly every aspect of a child's K-12 years, United States educators receive minimal or no coursework or professional development that focuses on educators' mental health literacy. While a substantial body of research has established that mental disorders adversely affect social, emotional, and academic development, educators' lack of mental health literacy leaves them significantly unaware of basic symptoms, behaviors, and outcomes of mental disorders as well as supports and interventions for children and adolescents with mental disorders. The aims of this study were to extend research that examines what elementary educators know about childhood depression and anxiety disorders, and b) to explore whether professional development, in the form of a book study, could increase educators' mental health literacy.

The study design incorporated an analysis of surveys and journal responses to determine what educators know about childhood depressive and anxiety disorders and if they increased their knowledge about these mental disorders. Participants also shared how they might incorporate any knowledge they gained into their daily classroom pedagogy. The participants included 20 K-5 educators, from six elementary schools in the Mid-Atlantic region of the United States. Over the course of nine weeks, the educators participated in a book study that included assigned readings; three, one-hour discussion sessions; pre- and post-surveys; and, journal responses after each session. The surveys and journal entries were analyzed to determine if their mental health literacy

increased over the course of the nine-week study. The study established that teachers increased their understanding of childhood depressive and anxiety disorders. The findings from this study may also be interpreted as a basis for universities and school systems to create mental health literacy coursework and professional development as the educators repeatedly stated the value of the training they received.

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Preface

Each person who makes the journey that ends with a completed dissertation undoubtedly does so for deeply personal reasons. My journey to this completed dissertation began as far back as I can remember. As a child who grew up in poverty and family chaos, I found on most days that my only refuge was in the schools I attended. The teachers in those schools served as my guiding light and salvation. They offered me truth. They offered me hope. And they offered me the assurance that if I could look into the future, I would find that education would take me far away from the place I was to any place I would ever want to go. Teachers like Denise Cechvala could not have known how crucial they would be to my development as an educator and person. For all of those teachers who served as guiding lights during my own K-12 years, I am forever thankful. This dissertation was inspired by and is possible because of all of you.

Throughout my career, I have met many educators who have served as powerful forces in my life. The educators who participated in this study shared their time, their talents, their fears, and their realities. They repeatedly expressed their deeply held hope of better understanding childhood depressive and anxiety disorders. On behalf of the hundreds of children who have or will pass through your classroom doors and for whom you serve as guiding lights, thank you.

The members of my dissertation committee are extraordinary educators as well. Dr. Charlene Trovato has served as a support and positive force in the lives of more educators than I am sure she could ever recall. That I was one of those educators who had the great benefit to learn from and with her is humbling. From the moment I met Dr. Sansea Jacobson, I knew that she was a star in the field of child and adolescent psychiatry. Her passion for ensuring that the Psychiatric Fellows she supervises learn about children's lives at school is inspiring. I am honored that you

have shared your immense knowledge and talent with me during this process. I offer my most heartfelt thanks to both of you. The work Dr. Mary Margaret Kerr and I have been doing together started long before she even knew who I was. After reading her research and using it for guidance as a young, mental health clinician, I dreamed that one day we would complete mental health research together. Never did I imagine that our paths would cross at a time and place, which would result in her serving as the Chair of my Dissertation Committee. Thank you for your expert guidance.

Though I repeatedly offered Sarah Dugan, who served as the editor for this dissertation, pots of gold, she humbly declined. The assistance you shared throughout this process is immeasurable. I am deeply grateful. Danielle Lowry offered expertise and support with the statistical analysis in this dissertation. I thank you for the patience and kindness you showed to me.

A journey of this magnitude cannot possibly be accomplished without daily sources of guidance, inspiration, friendship, and advice. I cannot begin to express the gratitude I have for the educators I work alongside daily who embarked on this part of my journey with me. These exemplary administrators, educators, school psychologists, counselors, and support staff make me a much better practitioner every single day I work alongside them. For your guiding lights, your friendships, your mentoring, your fiercely brave questions which challenge me to be better at the work I hope to accomplish, thank you. I only wish I could name you all.

Finally, and most importantly, to Julie: From the moment I walked out of the first doctoral program orientation meeting and shared that, “They told us everyone has to be all-in on this,” you never wavered. Not one moment. Throughout these past three years, every moment that I soared was purely a reflection of you and the love and support you give so freely to me. From the first to

the last words I wrote on these pages, not one word, not one part of this dream was possible without you. It is your guiding light that shines the brightest on all I am and all I do.

1.0 Introduction to the Problem of Practice

Over the course of their lifetimes, ten to twenty percent of children and adolescents have mental disorders (National Institute of Mental Health, 2016; World Health Organization, 2016) that cause academic, social, and emotional impairment (Bains & Diallo, 2016). In a given year, thirteen to twenty percent of these children and adolescents experience the symptoms of a mental disorder (Perou et al., 2013). Even though approximately one fifth of school-aged children have a mental disorder, educators are rarely exposed to pre-service or graduate level coursework and professional development about this topic (Anderson & Cardoza, 2016). This lack of professional preparation results in educators' substantial lack of understanding about students' depressive and anxiety disorders and how to appropriately address the behaviors which manifest from the disorders.

Numerous studies have found that educators throughout the world have a significant lack of knowledge and understanding about school-aged students' mental illnesses (Brown, Dahlbeck, & Sparkman-Barnes, 2006; Miller, Taha, & Jensen, 2012). To the educator who has received little or no training about mental health disorders, both the externalizing and internalizing behaviors, which are symptoms of mental health issues, are often confused with behavior or emotional disorders, are overlooked, or in cases of interpreting internalizing behaviors, are misunderstood as normal developmental behaviors. Additionally, in the instance in which a mental health diagnosis is documented in an Individual Plans of Education (I.E.P.) or 504 Plan (504), these documents can be a source of confusion. Specifically, though educators sincerely attempt to follow the legal mandates presented to them in I.E.P.s and 504s, they have not received the appropriate training to

accurately conceptualize the meaning of documented mental health diagnoses and the effects of these illnesses across all developmental domains.

Ultimately, this lack of knowledge and training results in educators neglecting to apply philosophies of holistic education into their daily practices and interactions with students. Despite research findings that educators lack the requisite knowledge to address mental health issues, educators desire to receive professional development which will bolster their abilities to recognize and adequately address students' mental health issues (Shah & Kumar, 2012; Vieira, Gadelha, Moriyama, Bressan, & Bordin, 2014).

To date, little research has definitively analyzed teacher literacy about students' depressive and anxiety disorders. Therefore, the aim of the study informed by this literature review is to document what educators know and understand about child and adolescent depressive and anxiety disorders, with two goals: (a) to inform future professional development and teacher preparation efforts and (b) to extend the limited body of current research.

To understand the proposed problem of practice addressed in this dissertation, the reader requires an introduction to the designation, classification, and epidemiology of mental health disorders in the United States. An introduction to these definitions and the epidemiology of these disorders permits the reader to understand the language used by mental health specialists. The following section offers this information.

2.0 Review of Supporting Scholarship

Mental health providers in the United States follow the *Diagnostic and Statistical Manual of Mental Disorders,* Fifth Edition (American Psychiatric Association, 2013), also known as the *DSM-5*, to classify mental disorders. This handbook "assist[s] trained clinicians in the diagnosis of their patients' mental disorders as part of a case formulation assessment that leads to a fully informed treatment plan for each individual" (American Psychiatric Association, 2013, p. 19). The *DSM-5* provides the following definition of a mental disorder:

> A mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities. An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behavior (e.g., political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above. (p. 20)

Clinicians use the *DSM-5* as a classification system to formulate a mental disorder diagnosis. The *DSM-5* provides diagnostic criteria for each mental disorder to which clinicians refer when considering whether a person should receive a mental disorder diagnosis. Clinicians rely on interviews, medical and psychological examinations, psychological screening instruments, and rating scales. Some adult diagnoses do not apply to children under the age of 18. Therefore,

clinicians consider numerous criteria to differentiate depressive and anxiety disorders that may present in children.

2.1 Depressive Disorders

According to the *DSM-5*, depressive disorders have common features: "the presence of sad, empty, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function" (American Psychiatric Association, 2013, p. 155). The following depressive disorders are included in the *DSM-5* (American Psychiatric Association, 2013):

- Disruptive Mood Dysregulation Disorder
- Major Depressive Disorder
- Persistent Depressive Disorder (Dysthymia)
- Premenstrual Dysphoric Disorder
- Substance/Medication-Induced Depressive Disorder
- Depressive Disorder Due to Another Medical Condition
- Other Specified Depressive Disorder
- Unspecified Depressive Disorder

The prevalence of depressive disorders in children and adolescents (ages 3-17) in the United States is 3.2% (Ghandour et al., 2019, p. 256). This represents approximately 1.9 million children and adolescents. After analyzing the 2016 National Survey of Children's Health (NSCH), Ghandour et al. (2019) stated that, "Trends across time in these data suggest that although the prevalence of some childhood mental disorders has remained relatively stable, that of several

disorders (e.g., depression among adolescents) has increased" (p. 256). Though major depressive disorder can be diagnosed at any age, "the likelihood of onset increases markedly with puberty" (American Psychiatric Association, 2013, p. 165). Persistent depressive disorder (dysthymia) has a prevalence of 0.5–1.5% of the general population (American Psychiatric Association, 2013, p. 170). Premenstrual dysphoric disorder has a prevalence rate between 1.8% and 5.8% of the female population (American Psychiatric Association, 2013, p. 173).

2.2 Anxiety Disorder

Anxiety disorders exhibit common features. According to the *DSM-5*, these shared features are "excessive fear and anxiety and related behavioral disturbances" (American Psychiatric Association, 2013, p. 189). The differences that exist between the disorders are based upon "the types of objects or situations that induce fear, anxiety, or avoidance behavior, and the associated cognitive ideation" (American Psychiatric Association, 2013, p. 189). The following anxiety disorders are included in the *DSM-5*:

- Separation Anxiety Disorder
- Selective Mutism
- Specific Phobia
- Social Anxiety Disorder
- Panic Disorder
- Agoraphobia
- Generalized Anxiety Disorder

- Substance/Medication-Induced Anxiety Disorder
- Anxiety Disorder Due to Another Medical Condition
- Other Specified Anxiety Disorder
- Unspecified Anxiety Disorder

The prevalence of separation anxiety disorder in children is 4% and, among adolescents, it is 1.6% (American Psychiatric Association, 2013, p. 192). Selective mutism has a prevalence rate of 0.03% and 1% (p. 196). Social phobia prevalence rates are "approximately 5% in children and are approximately 16% in 13- to 17- year olds" (American Psychiatric Association, 2013, p. 199). Approximately 7% of children and adolescents meet criteria for social anxiety disorder. Panic disorder has a low prevalence rate in children under 14 (< 0.4%) but has a "gradual increase during adolescence, particularly in females, and possibly following the onset of puberty, and peak during adulthood" at 2%–3% (American Psychiatric Association, 2013, p. 210). Approximately 1.7% of adolescents meet criteria for agoraphobia (American Psychiatric Association, 2013, p. 219). Generalized anxiety disorder has a prevalence rate of 0.9% among adolescents (American Psychiatric Association, 2013, p. 223).

2.2.1 The Concept of "Internalizing Disorders"

Depressive and anxiety disorders are considered "internalizing disorders" (Wilkinson, 2009). As such, most of their symptoms manifest as distress that is experienced internally; however, residual remnants of these symptoms may manifest in an observable manner. Depressive and anxiety disorders have a high rate of comorbidity. Within the context of mental disorders, the term "comorbidity" means that a person simultaneously experiences two mental disorders. In a meta-analysis conducted by Angold, Costello, and Erkanli (1999), they found that among children

and adolescents with a major depressive disorder, 32% also met criteria for an anxiety disorder. It is these comorbid, internalizing disorders that appear to be least understood by public school educators. In a recent data analysis Ghandour et al. (2019) stated,

> Regarding comorbid mental disorders, we found that nearly 3 in 4 children with depression had concurrent anxiety, whereas 1 in 3 children with anxiety had concurrent depression. These disorders share a common etiology, and longitudinal studies have identified childhood anxiety as a risk factor for developing depression. (p. 265)

2.3 Mental Health Literacy (MHL) Defined

Explaining the evolution of how mental health literacy (MHL) has been defined is a prerequisite to delving into the specifics about educator mental health literacy. Rooted in the domain of health literacy (HL), the definition of MHL has changed from a broad understanding of various components of mental health issues, to its currently accepted definition that focuses on four specific components of MHL As the definition and understanding about HL evolves, it lends itself to providing the framework for the ongoing evolution of MHL. Defining and understanding both HL and MHL provides an important framework for this study.

Kutcher, Wei, and Coniglio (2016) summarized HL as follows:

> The competencies needed by people to help obtain and maintain health and identify illness; understanding how and where to access and how to evaluate health information and health care; understanding how to properly apply prescribed treatments; and, obtaining and applying skills related to social capital, such as understanding rights related to health and health care and understanding how to advocate for health improvements. (p. 154)

It is important to understand that while this definition is the currently accepted definition of HL, this definition continues to change. These changes are a reflection of the research establishing the importance of educating the public about how their own minimal level of HL is directly correlated to poor health and social outcomes, including, "increased rates of chronic illness; decreased use of health services; increased health care costs; and early mortality" (Kutcher et al., 2016, p. 154). The World Health Organization (2017) highlighted the need for well-established HL programs when it stated that health literacy is, "a stronger predictor of an individual's health status than income, employment status, education and racial or ethnic group" (p. 7).

As a component of understanding one's overall health, MHL is currently defined as,

> Understanding how to obtain and maintain positive mental health; understanding mental disorders and their treatments; decreasing stigma related to mental disorders; and, enhancing help-seeking efficacy (knowing when and where to seek help and developing competencies designed to improve one's mental health care and self-management capabilities. (Kutcher et al., 2016, p. 155)

For the purpose of this study, "understanding mental disorders and treatments" provides the essential aspect of the MHL definition used as a focal point about educators' MHL in school-aged students.

2.3.1 Educators' Understanding of Mental Disorders

Several studies have focused on the MHL of public school educators regarding child and adolescent mental disorders. These studies have concluded that public school educators do not understand or address the mental disorder issues confronting one in five students in their schools

(Andrews, McCabe, & Wideman-Johnston, 2014; Brown et al., 2006; Miller et al., 2012; Reinke, Stormont, Herman, Puri, & Goel, 2011). To the teacher who lacks foundational literacy about mental disorders, externalizing symptoms such as oppositional and aggressive behaviors may be misunderstood, misinterpreted, or overlooked. Lack of training and knowledge about mental disorders has the potential to skew educators' perspectives about students, inhibit appropriate responses and interventions, and most alarmingly, miss the opportunity to refer a student who is suicidal to appropriate mental health clinicians.

Depressive and anxiety mental disorders may present themselves in several ways in public school classrooms. For example, students with depressive disorders may appear sad and withdrawn, show a decrease in achievement, become verbally or physically aggressive, or refuse to attend school or participate in extracurricular activities. Students with anxiety disorders may withdraw from activities that involve collaboration or refuse to speak in front of their classmates. To the untrained educator, these behaviors may be confused with what is subjectively viewed as "normal adolescent behavior," "a lazy kid," or "a student who isn't motivated." These misconceptions create lost opportunities to provide an educational environment that appropriately addresses depressive and anxiety disorder symptoms. Educators' lack of mental disorder literacy also ignores opportunities to provide referrals to appropriate mental health providers.

Several studies regarding teacher literacy have been conducted throughout the Canadian public school system. Froese-Germain and Riel (2012), partnering with the Canadian Teachers' Federation, found that "almost seven in 10 teachers had not received any professional development such as knowledge acquisition or skills training related to student mental health, and 75% of teachers with fewer than five years of teaching experience reported having none" (p. 5). Due to findings such as this, researchers in Canada are presenting blueprints for increasing teachers'

mental health literacy capacity throughout the Canadian public school system. Ireland (2017) recently completed an Organizational Improvement Plan (OIP) for Western University, which discusses arguments for pre-service and current educational practitioner professional development to increase capacity in educators regarding school-aged students' mental disorders. Organizational Improvement Plans such as this are necessary components for systems to improve the quality and quantity of educator mental health literacy curriculums.

In their article focusing on the argument that mental disorders in adolescence are quite likely underestimated, Flett and Hewitt (2013) examined the shortcomings of educator literacy about child and adolescent mental disorders in current school systems in Canada and the reasons for these shortcomings. They note:

> Levels of distress and dysfunction among young people are substantially underestimated and the prevalence of psychological problems is higher than realized because of a variety of factors. In particular, it is suggested that psychological problems are underestimated, due in part, to the presence of sub threshold conditions that do not meet diagnostic criteria yet involve substantial distress and impairment. (p. 1)

Stated another way, an increase in educator mental health literacy is necessary so that *all* students (i.e., not just those who are easily identifiable to an untrained educator) receive appropriate and needed supports for mental disorders.

Teachers seem able to identify *externalizing* behaviors often associated with significant symptoms of mental health disorders. These symptoms include disruptive and violent behaviors, withdrawing from peers and academics, affective displays of sadness, and hyperactivity. Vieira et al. (2014) studied 26 teachers in Brazil and found the teachers had a substantially more difficult time identifying students who had only internalizing problems. These findings were based upon

the teachers' inability to accurately identify these students in six vignettes that highlighted various mental disorders. These findings appear to indicate that consideration should be applied to understand how many students with depressive and anxiety disorders are often misunderstood or do not receive interventions, as depressive and anxiety disorders often have internalizing behaviors.

In their study that focused on the perceptions of the role of the teacher in addressing student mental health issues, Reinke and his colleagues (2011) asked teachers a series of questions about student mental health issues, including whether schools should provide support to students with mental health issues, and if teachers believed they had the skills to address student mental health needs that appear in the classroom. Based on a five-point Likert-style question, teachers responded to the question, "I feel that schools should be involved in addressing the mental health issues of students," with the following outcome: 89 percent either agreed or strongly agreed. Though teachers overwhelming agreed that schools should be involved in addressing mental health issues, only four percent of teachers indicated that they strongly agreed that they had the skills to address the students' mental health needs. The results of this question point to the need for teachers to increase their literacy about school-aged students' depressive and anxiety disorders so that they can engage in evidence-based interventions that support the mental health well-being of their students in the classrooms. This increase in literacy could be achieved by teacher education programs placing an emphasis on child and adolescent mental health disorders in coursework and through the development and delivery of professional learning opportunities.

Further bolstering the need to increase teacher mental health literacy is the study that Shah and Kumar (2012) conducted with 1049 educators in India. This study showed that, while teachers believed children with mental health issues were present in their classrooms, they were not

equipped to handle those issues. Shah and Kumar (2012) stated, "Conversely, teachers who are unaware of the mental health needs in children can have narrow and stigmatized perception, and over or under pathologize the problems and can impede carrying out any programme related to mental health in school" (p. 523). However, teachers were willing to learn about mental health issues and strategies to handle these issues. After professional development, teachers asked for additional training in strategies for addressing student mental health issues they faced in the classroom. In other words, teachers want and need professional development regarding child and adolescent mental health issues. Regardless of the country in which they teach, educators share the common desire to support and nurture the child.

While von Klitzing, Dohnert, Kroll, and Grube (2015) found that the prevalence of mental disorders among children up to the age of six is 17%, studies that examine educator literacy specifically in primary schools are limited. Still, the findings from these studies can inform future research. Gowers, Thomas, and Deeley (2004) surveyed 291 educators in a rural district with a focus on three domains: training, evaluation of training, and ability to identify primary students with mental health disorders. The findings of this study aligned with the studies focused on middle and high school educators. Specifically, the primary school teachers were aware that, while there were students with mental health issues in their classrooms, the teachers had not received adequate training to address the mental health needs of their students. Training which focuses on sound classroom management and empathy could assist them with some issues related to children's mental disorders.

Ultimately, the lack of educator literacy regarding school-aged students' mental disorders can result in the worst-case scenario outcome. Scouller and Smith (2002) documented that only 11% of secondary-level educators in Australia in their study "were aware of the high prevalence

of psychiatric disorder as a risk factor for adolescent suicide" (p. 73). Scouller and Smith (2002) also reported that 73% of secondary-education teachers "discounted the significance of this factor" (p. 76). This is arguably the most sobering and stunning reason for developing a more thorough understanding of the literacy levels of public school educators.

Exacerbating educators' general lack of literacy about school-aged students' depressive and anxiety disorders, non-school-based systems, such as outpatient mental health clinics, often do not coordinate care with public schools. The clinical criteria for diagnosing children and adolescents with depressive and anxiety disorders outside the public school systems is based on the *DSM-5*. However, for a student to qualify for an emotional disturbance in a school-based setting, the *DSM-5* is not used, as the eligibility criteria in public schools are educational in nature. This use of differing criteria tools appears to contribute to a general misunderstanding of depressive and anxiety disorders across public school settings. Even as this disparity about diagnostic criteria permeates these two systems, school psychologists are largely held responsible for providing recommendations for interventions, accommodations, and guidance to teachers in the public school setting. The role school psychologists serve has contributed to the belief that school psychologists are most responsible for providing supports for school-aged students' mental disorders (Reinke et al., 2011).

2.4 The Critical Role of Educators

Public schools are the ideal centralized setting for acknowledging, understanding, and addressing the symptoms of school-aged students' depressive and anxiety mental disorders. Ninety percent of, or approximately 50 million, school-aged children in the United States attend

public schools (Anderson & Cardoza, 2016; Snyder, de Brey, & Dillow, 2016). As a group, public school educators have the greatest systemic exposure to school-aged children. Educators in public schools are charged with ensuring that students such as those with mental disorders receive an education that is free, appropriate, and inclusive. To provide such learning experiences requires that educators have literacy about the mental health needs of their pupils. This literacy includes an understanding of depressive and anxiety disorders and their associated symptoms and behaviors. When students are diagnosed with mental disorders, knowledgeable educators can address their students' needs for specialized instruction and accommodations.

Numerous studies have pointed to the importance of positive relationships between teachers and students regarding mental health promotion and academic achievement. Dvorsky, Taylor, and Weist (2012) examined the influence that both positive and negative teacher-student relationships exert on mental health issues of school-aged students. They found that while students' disruptive behaviors can create a strain in the relationships with their teachers, "emotional support from teachers has been associated with high academic achievement in the first grade among students at high functional risk" (p. 80).

Educators have the metacognitive knowledge necessary to recognize that they lack literacy about student mental disorders. This underscores teachers whole-heartedly using and acknowledging what Heifetz, Grashow, and Linsky (2009) refer to as "[their] piece of the mess" (p. 192). It is through this acknowledgement that teachers create what Heifetz et al. (2009) state as "the opportunity to fix at least one element of the problem, the one that is more or less under [their] own control" (p. 192). Failure to understand and address these needs contributes to student truancy, poor educational performance, and disruptive behaviors that lead to detentions, suspensions, and placements, which are highly restrictive in nature. While describing the bilateral

relationship between academic failure and mental health disorders, Suldo, Gormley, DuPaul, and Anderson-Butcher (2014) bluntly pointed out that,

> Academic failure can be a critical initiation point for both proximal and distal deviant pathways. Proximally, academic failure has been demonstrated to interact with negative cognitions to predict depressive symptomatology. Distally, academic difficulties have been shown to predict poorer mental health, lower SES, greater deviant behavior, and incarceration. (p. 90)

The ripple effect mental disorders create in the development of students' academic, social, emotional, and career-ready skills is too wide and far reaching over the course of their lifetimes to continue to ignore addressing educator literacy which often maintains inaccurate conceptualizations about school-aged students' mental disorders and their resulting lifelong effects and outcomes. The significance of the potential outcomes related to an increased understanding of educators' literacy about child and adolescent mental disorders is difficult to overstate. A greater understanding of educators' literacy could provide the framework for research-based professional development. Additionally, systemic supports for educators who have the greatest potential to develop a positive impact on children and adolescents with mental disorders could be established.

3.0 Methods (Applied Inquiry Plan)

3.1 Research Aims

The purpose of this inquiry was two-fold: first, to establish an understanding of the level of teachers' literacy about internalizing mental disorders in school-aged children and how these disorders manifest in the school setting; and second, to gain an understanding about whether a book study intervention could enable educators to apply new mental health literacy in their everyday pedagogical practices. Answering these questions may assist universities and colleges with developing pre-service and graduate coursework, and public school systems to create professional development opportunities that increase the mental health literacy of their pre-service and currently practicing teachers. Both qualitative and quantitative methods assisted with determining if teachers could increase their mental health literacy throughout the course of a book study and if they applied this increased literacy to their everyday practices.

3.2 Design

Previous literature has established that public school teachers lack literacy regarding internalizing mental disorders in children and adolescents (Andrews et al., 2014; Brown et al., 2006; Miller et al., 2012; Reinke et al., 2011). Additionally, Reinke et al. (2011) found that 78% of their study participants stated that a barrier to supporting the mental health needs of students is a lack of training for educators. Inherent to this study is the understanding that these previously

established findings lend themselves to increasing the mental illness literacy of teachers so that they may provide appropriate supports to students within their classrooms who have mental disorders.

According to Guskey (2016), professional development, such as book studies, can be evaluated for effectiveness in five levels. Four of those evaluative levels were used in this study. The fifth level, which measures student learning outcomes, was not used in this study as those outcomes are beyond the scope of this study.

Over the course of nine weeks, participants read assigned chapters from *Helping Students Overcome Depression and Anxiety* (Merrell, 2008), attended three, one-hour professional development book study sessions, and completed a pre-survey before the first book study session and a post-survey after the last book study session. In addition, participants completed journal entries about any opportunities they had to apply their increased understanding of internalizing mental disorders in school-aged students to their everyday practices.

3.3 Inquiry Questions

The questions listed below are correlated to four of five levels of program evaluation discussed by Guskey (2016). The levels are listed in italics next to the questions.

1. To what extent do K-5 teachers increase their literacy about internalizing mental disorders in school-aged students in three, one-hour book study sessions? *(Participants' Learning)*
2. How do educators report feeling about learning about elementary students' internalizing mental disorders? *(Participants' Reactions)*

3. How does professional development in the form of a book study influence teachers' reported self-efficacy in providing appropriate supports and making appropriate referrals for elementary students with internalizing mental disorders in K-5 classrooms? *(Organizational Support and Change)*
4. How does the proposed book study influence K-5 teachers' everyday pedagogy? *(Participants' Use of New Knowledge and Skills)*

3.4 Setting and Participants

This study was conducted in a mid-Atlantic, public school district and included 20 full-time educators representing each grade K-5, intervention specialists, and special education educators willing to participate in the study. All 20 of the participants were female. The study excluded substitute teachers, student teachers, school psychologists, school counselors, school social workers, administrators, and additional staff who are not certified teachers.

3.5 Procedures

3.5.1 Participant Recruitment Procedures

Participants were recruited by presenting details of the study in-person during faculty meetings throughout the district. A follow-up email was sent to all of the district's teachers one week later. The study limited the number of participants to 20. However, it should be noted that

32 educators volunteered to participate in the study and an additional four participants asked to participate in the book study portion of the study if it was offered at another time. Due to more volunteers requesting to participate in the study than the study allotted, the primary investigator randomly selected 20 participants from the list of all 32 participants requesting to participate. The recruitment script and follow-up email appear in Appendix A.

3.5.2 Ethical Safeguards

In addition to the University of Pittsburgh's IRB and dissertation committee members, the assistant superintendent of elementary education of the participating school district approved all aspects of the study before beginning any portion of the study.

Before beginning participation in the study, all participants completed and returned an Informed Consent Document. This document can be found in Appendix B. Before completing the pre-survey, each participant chose a coded identifier that was confidential. Before taking the pre-survey and post-survey, participants entered this identifier so that each step could be analyzed for changes in their knowledge and feelings. Participants answered the journal entries anonymously. All data were collected and stored in the online Qualtrics database system.

3.5.3 Training Program

For the book study, participants read and reflected upon chapters from *Helping Students Overcome Depression and Anxiety* (Merrell, 2008). As this book is intended for "school counselors, school psychologists, school social workers, special education consultants and teachers, mental health specialists, and other support service professionals in their work with at-

risk students in school settings" (p. vii), some of the intervention techniques discussed in the book are not applicable to general and special education classrooms. Therefore, the book was not used in its entirety. Instead, the chapters that focus on providing an overview of internalizing mental disorders in children and adolescents and the chapters that provide intervention techniques that reasonably could be expected to be used by a regular education or special education teacher were studied and reflected upon by the participants. Chapters focused on specific therapeutic interventions, such as cognitive behavior therapy, and on medication, were not used as a part of the book study.

During the study sessions, the primary investigator invited participants to discuss and comment on the reading. These discussions and comments focused on how they felt about what they were reading, what new knowledge they gained as a result of the reading, and anything that surprised them about what they were reading.

3.5.4 Timeline

Participants completed a nine-week book study course. Table 1 maps the outline of details related to each week of the study. Throughout the nine weeks, participants completed an online pre-survey and post-survey. Additionally, participants completed a journal entry after each session, which reflected on their ability to integrate what they learned in the book study session into their daily practices.

At the conclusion of the book study session, participants were sent a journal prompt via Qualtrics to complete, focusing on how they were making meaning of the readings and book study discussions and any opportunities they had to use the knowledge they gained from the reading and book study session in their everyday practice.

Table 1. Course Outline Activity Description

Week	Activity Description	Chapters
1	Participants received access to an online pre-survey survey focusing on internalizing disorders in school-aged students. Once the pre-survey was completed, participants received *Helping Students Overcome Depression and Anxiety* (Merrell, 2008) and read Chapters One and Two.	Chapter One: Understanding Internalizing Problems: Depression and Anxiety in Children and Adolescents Chapter Two: How Internalizing Problems Develop and Are Maintained
2	Due to a school cancellation attributed to severe weather, the first book study was rescheduled to Week 3.	
3	Participants attended a one-hour book study session to review and discuss Chapters One and Two. Participants analyzed the vignettes in Chapter One and discussed any relevance to past and present students in their classrooms. After the book study session, participants completed a journal entry focusing on any opportunities they had to use the knowledge they gained from the reading and book study session in their everyday practice.	
4	Participants read Chapters Four, Seven, and Eight. These chapters focus on promotion of mental health and supports and interventions for depression.	Chapter Four: Social and Emotional Learning: An Important Tool for Promoting Mental Health Chapter Seven: Changing Thoughts and Beliefs: Rational – Emotive Therapy, Attribution Retraining, Learned Optimism, and Journal-Writing Strategies Chapter Eight: Other Strategies for Depression
5	Due to a school cancellation attributed to severe weather, the book study was rescheduled to Week 6.	

Table 1 (continued)

6	Participants attended a one-hour book study session to review and discuss Chapters Four, Seven, and Eight. After the second book-study session, participants completed a journal entry focusing on any opportunities they had to use the knowledge they gained from the reading and book study session in their everyday practice.	
7	Participants read Chapters Nine and Ten. These chapters focus on supports and interventions for anxiety.	Chapter nine: Behavioral Treatments for Anxiety: Systematic Desensitization and Other Techniques Chapter Ten: Skills Training and Other Treatments for Anxiety
8	Participants attended a one-hour book study session to review and discuss Chapters Nine and Ten.	
9	Participants completed an online post-survey about the information from all seven chapters they read and discussed in the book study sessions. Participants also completed a journal entry focusing on any opportunities they had to use the knowledge they gained from the reading and book study session in their everyday practice.	

3.6 Data Collection

3.6.1 Survey Tools

A survey was administered to each participant before the first book study session and after the final book study session. The survey questions were adapted from concepts from the Anxiety Literacy Questionnaire (A-Lit) (Griffiths, n.d.-a), Depression Literacy Questionnaire (D-Lit) (Griffiths, n.d.-b), and the Mental Health Literacy Scale (MHLS) (O'Connor & Casey, 2015). All questions are listed in Appendix C.

3.6.2 Journal

Participants received open-ended prompts, which focused on asking them to describe how they were making sense of the reading and discussions in the book study sessions and any opportunities they had to use the knowledge they gained from the readings and book study sessions into their pedagogy. Additionally, participants were asked to detail feelings about whether or not they feel an increased self-efficacy regarding providing supports and making appropriate school-based referrals for students with internalizing mental disorders based upon what participants learned in the book study sessions. All questions are listed in Appendix D.

3.7 Analysis of Data

3.7.1 Analysis of Survey Data

The pre-survey and post-survey were measured as follows:

Responses for questions one and two on the pre- and post-surveys were checked for participant accuracy about symptoms of anxiety and depression in school-aged students.

Responses to questions three through six were analyzed using a paired sample t-survey analysis to determine if individual participants reported increasing their literacy regarding internalizing mental disorders in children and adolescents. A paired sample t-survey is used when the two samples are not independent of one another. The scores each person received on the pre-survey were compared to the scores the same person received on the post-survey. Because this method relies on comparing the pre- and post-survey for the same person, if a person did not complete a pre-survey or post-survey, they were dropped from the sample and not included in the analysis.

Responses to the two, post-survey vignette questions were analyzed for accurate responses that stated an understanding about how anxiety and depressive symptoms manifest and present in their students, and for responses that noted making referrals or providing supports in the classroom.

3.7.2 Analysis of Journal

Each journal was uploaded into computer-assisted qualitative software (Dedoose) for coding. All journal entries for journal one were grouped together for analysis, followed by

grouping all journal two entries together, and finishing with grouping all journal three entries together.

To identify the initial codebook, I followed a two-step process. First, a colleague with significant mental health training and credentials and I read the literature review in Chapter Two and independently identified a set of primary codes that reflected what current research has deemed critical concepts in teacher mental health literacy. We then compared our list of initial codes, discussing any discrepancies, and finalized the codebook to be used for subsequent analysis. Second, we read all of the journal entries and independently identified additional codes uncovered in the journal entries. This set of subcodes reflected, in part, specific interventions presented in *Helping Students Overcome Depression and Anxiety* (Merrell, 2008). Together, the results of these two steps formed the codebook used for subsequent data analysis. The final codebook with primary codes and subcodes, and descriptions appears in Table 2.

Table 2. Code Description Key

Primary Code	Description	Subcode
Beliefs/opinions	Refers to beliefs/opinions related to roles of specific groups of people	Non-School Mental Health Professional
		Role of Counselor
		Role of School/District
		Role of Society (Parents and Community)
		Role of Teacher
Book study experience	Refers to book study experience	Negative Experience
		Positive Experience
Lack of literacy	Refers to not knowing specific aspects of childhood depression and anxiety	Age of Onset
		Co-Morbidity
		How to Refer
		Interventions/Treatments
		Link to Academics
		Other
		Prevalence
		Symptoms
		Terminology
Expressed emotion	Expresses emotion about experience with reading, discussion, daily practice	Anger
		Hopeful
		Overwhelmed
		Regret
		Relief
Interventions to use	Refers to specific types of supports/interventions to use covered in book study	ABCDE
		Activity Scheduling
		Attribution Retraining
		Behavior Interventions
		Desensitization
		Journaling
		Mindfulness Approaches
		RET
		Social and Emotional Learning Curriculum
		Student Mental Health Literacy Education

Table 2 (continued)

Knowledge	Refers to knowledge about depression and anxiety in K-5 children	Academic Difficulty Externalizing Disorders Internalizing Disorders Link to Suicide Misconceptions Apparent in Comment
Metacognition	Refers to self-reported knowing or not knowing	Hindsight (Now I realize) I Thought I Knew
Reflective Practices	Refers to reflecting on past, present, and future practices	Looking Ahead (Will I do Things Differently?) Problems Overlooked/Did Not Take Action Questioning Others' Practices
Referrals	Refers to making or not making referrals for concerns about depression and anxiety	Failed to Refer Referred/Took Action

Next, I coded each set of journal entries using the identified codebook and eliminating codes that did not apply to any entries. Tables 3, 4, and 5 provide the final list of primary codes and subcodes, examples of applied codes, and the number and percentage of journal writers for each code. The listed examples illustrate excerpts from journal entries that reflected the primary code. Lastly, Tables 3, 4, and 5 show the number and percentage of participants whose journal entry was coded using a particular subcode.

4.0 Findings

This chapter organizes the findings by research questions. Specifically, the following research questions framed this research study:

- To what extent do K-5 teachers increase their literacy about internalizing mental disorders in school-aged students in three, one-hour book study sessions?
- How do educators report feeling about learning about elementary students' internalizing mental disorders?
- How does professional development in the form of a book study influence teachers' reported self-efficacy in providing supports and making appropriate referrals for elementary students with internalizing mental disorders in K-5 classrooms?
- How does the book study influence K-5 teachers' everyday pedagogy?

Under each research question, all sources of data will be reviewed and then the data will be described in detail. We begin this chapter with a review of each measure used throughout the study and the response rates for each one.

4.1 Response Measures and Rates for the Pre- and Post-Surveys

The participants' literacy about internalizing disorders in school-aged students, factors influencing the disorders, and supports and interventions for working with students with the disorders were measured with survey questions from the pre-survey and post-survey and two open-

ended response vignette questions on the post-survey. The data from the survey questions were extracted from Qualtrics and analyzed as follows:

- Responses for questions one and two on the pre- and post-surveys were checked for participant accuracy about symptoms of anxiety and depression in school-aged students.
- Responses to questions three through six were analyzed using a paired sample t-survey.
- Responses to the two post-survey vignette questions were analyzed for accurate responses that stated an understanding about how anxiety and depressive symptoms manifest and present in their students, and for responses that noted making referrals or providing supports in the classroom.

Twenty of 20 enrolled participants completed the pre-survey in its entirety. This represents a 100% response rate. Seventeen of 20 enrolled participants completed the post-survey, representing an 85% response rate. One participant completed the pre-survey in its entirety and part of the post-survey, including the vignette questions. Four of the surveys were not analyzed using the paired sample t-survey because they did not have matching pre- and post-survey surveys.

4.2 Response Measures and Rates for the Journal Entries

In addition to the quantifiable questions on the pre- and post-surveys, participants responded to the following prompt after each of the three book study sessions:

Thank you again for participating in the book study session. Please help me understand how you are making meaning out of the readings and discussions by providing a reflection

on what you have learned from the reading and discussion in this week's session. As an example, you may have connected something you read or we discussed to a previous or current interaction with a student.

Nineteen of the participants completed the first journal entry, reflecting a 95% response rate. Eighteen of the participants completed the second journal entry, reflecting a 90% response rate. Seventeen of the participants completed the third journal entry. This is an 85% response rate. In each of the opportunities for participants to complete journal entries, participants commented on increasing their literacy about depression and anxiety in the students they teach.

To recall, a two-step coding process was used for analyzing the journals. First, initial codes were developed based on the literature review. Derived from prior studies, these "sensitizing codes" (Hsieh & Shannon, 2005, p. 1281) formed the initial codebook. Second, after reading all journal entries, a revised set of codes was developed. Tables 3, 4, and 5 summarize the application of the codes. Here, one sees an analysis of the journals based on the codes, examples of applied codes, subcodes, and the number and percentage of journal writers whose entries were coded with a specific code.

Table 3. Journal Entry One: Summary of Codes, Subcodes, Participant Numbers, and Percentages

Primary Code	Example of Applied Codes	Subcode	Number and percentage of journal writers
Book study experience	I feel I have gained a great deal of knowledge about symptoms, causes, and solutions to these disorders through this book study. I know I will be able to apply some in my classroom and will keep the book handy to refer to through my career.	Positive experience	10/52.6%
Lack of literacy	It was also surprising to see the crossover symptoms and that some of the external symptoms can actually mean internalizing disorders.	Age of onset	2/10.5%
		Co-morbidity	10/52.6%
		How to refer	1/5.2%
		Interventions/treatments	4/21%
		Other	1/5.2%
		Prevalence	3/15.7%
		Symptoms	10/52.6%
		Terminology	2/10.5%
Expressed emotions	I'm excited to learn strategies I can implement to help these students become more available for leaning and successful social interactions.	Anger	1/5.2%
		Hopeful	6/31.5%
		Regret	2/10.5%
Knowledge	I never realized how many different ways anxiety can present itself, sometimes being the complete opposite of my preconceived ideas.	Academic difficulty	1/5.2%
		Internalizing disorders	3/15.7%
		Misconceptions apparent in comment	3/15.7%

Table 3 (continued)

Metacognition	When I think back to particular students over the years, I see so many red flags that I may have missed	Hindsight (now I realize)	4/21%
		I thought I knew	3/15.7%
Referrals	I now feel that I can reach out to counselors if I see any concerning behaviors.	Failed to refer	2/10.5%
		Referred/took action	2/10.5%
Reflective practices	After reading the first two chapters, I found myself thinking of students I have had in the past. In particular there have been anxiety type behaviors that I have been annoyed or dismissive of and also readily thought that parents were creating more of an issue	Looking ahead (Will I do things differently?)	5/26.3%
			6/31.5%
		Problems overlooked/did not take action	3/15.7%
		Questioning others' practices	

Table 4. Journal Entry Two: Summary of Codes, Subcodes, Participant Numbers, and Percentages

Primary Code	Example of Applied Codes	Subcode	Number and percentage of journal writers
Book study experience	I enjoyed reading these next chapters that focused more on applications and strategies in the classroom.	Positive experience	2/11.1%
Interventions for use	The fact that the research is showing that SEL strategies reduce levels of behavioral and emotional problem symptoms, reduce future occurrences and enhances students ability to successfully engage in academic learning convinces me that it is in perfect alignment with our daily goals for all students,	ABCDE	1/5.5%
		Activity scheduling	1/5.5%
		Attribution retraining	2/11.1%
		Behavior interventions	1/5.5%
		Journaling	2/11.1%
		Mindfulness approaches	1/5.5%
		RET	2/11.1%
		Social and Emotional Learning Curriculum	11/61.1%
		Student Mental Health Literacy Education	1/5.5%
Expressed emotions	This chapter cemented my feelings that now more than ever, it is critical that we teach children how to understand and manage their changing emotions and relationships.	Anger	4/22.2%
		Hopeful	6/33.3%
		Regret	2/11.1%
		Relief	2/11.!%
Beliefs/opinions	I believe that indeed I have taken the role of a counselor.	Role of Counselor	10/55.5%
		Role of School/District	10/55.5%
		Role of Society/Family	5/27.7%
		Role of Teacher	15/83.3%

Table 4 (continued)

Knowledge	I am 100% in support of teaching a SEL curricula to help our students prevent, navigate, and overcome internalizing problems and as a result witness increased academic progress, growth, and positive behavior outcomes!	Academic difficulty	1/5.5%
Referrals	As I read these chapters, I thought about how many kids I've let pass through my classroom without properly giving them such tools...and all honestly, I don't know that I have really acquired all the tools myself.	Failed to refer	1/5.5%
		Referred/took action	1/5.5%
Reflective practices	I fear that many students, especially at the primary level, are misdiagnosed by teachers and administrators.	Questioning others' practices	1/5.5%

Table 5. Journal Entry Three: Summary of Codes, Subcodes, Participant Numbers, and Percentages

Primary Code	Example of Applied Codes	Subcode	Number and percentage of journal writers
Interventions for use	Social stories are so helpful in walking students through uncomfortable and anxiety-causing situations, and we use them often.	Desensitization	4/23.5%
		Mindfulness approaches	5/29.4%
		Social and Emotional Learning Curriculum	5/29.4%
Book study experience	At the end of the day, my hope is that other educators (both new to the field and veteran teachers) have the opportunity (or are required) to have extensive training in anxiety and depression in children. We owe it to the lives we touch each day.	Positive experience	5/29.4%
Lack of literacy	The biggest thing that I keep going back to is that anxiety can present itself in ways that you would not expect - especially in acting out and disruptive behaviors.	Co-morbidity	1/5.8%
		Other	1/5.8%
		Symptoms	2/11.7%
Expressed emotions	With the appropriate training and understanding of mental health and its benefits I feel teachers would be wonderful advocates and helpers to their students.	Hopeful	8/47%
		Overwhelmed	1/5.8%
		Regret	1/5.8%
Beliefs/opinions	I could sense that teachers absolutely have the desire to understand anxiety and depression in students, want ideas for how to respond to students experiencing mild to extreme maladaptive behaviors, yet they really want the support and guidance of counselors, and administrators because they still believe these interventions are above their skill set and do not fit within their time parameters.	Non-School Mental Health Providers	2/11.7%
		Role of Counselor	13/76.4%
		Role of School/District	3/17.6%
		Role of Society/Family	2/11.7%
		Role of Teacher	17/100%

Table 5 (continued)

Knowledge	My resurvey takeaway from participating in this research study would be understanding how very important mental health is to a student's well being, socialization, and academic progress.	Academic difficulty	1/5.8%
Referrals	I suggested having him work with our counselor and I have been trying to use different strategies that were in the book (stories and journaling).	Referred/took action	1/5.8%
Reflective practices	As I read, I appreciated the knowledge and exposure so that I can "bring more to the table" and offer suggestions for supporting students, knowing that I will also have other team members to offer suggestions and together, we develop a plan of intervention.	Looking ahead (Will I do things differently?)	1/5.8%
		Problems overlooked/did not take action	1/5.8%

Next we turn to each of the major research questions, beginning with changes in teacher literacy during the nine-week book study.

4.3 To What Extent Do K-5 Teachers Increase Their Literacy About Internalizing Mental Disorders in School-Aged Students in Three, One-Hour Book Study Sessions?

This section describes the measures used to identify the extent to which teachers increased their literacy about internalizing mental disorders in school-aged students.

4.3.1 Listing of Anxiety Symptoms

The first question on the pre- and post-surveys asked respondents to list five symptoms of anxiety disorders in school-aged students. Seventeen of 20 respondents (85%) correctly identified five symptoms of anxiety disorders in the pre-survey. Seventeen of 17 respondents (100%) correctly identified five symptoms of anxiety disorders on the post-survey.

It is of importance to note that the respondents, who are all educators, provided responses which used terminology that would be familiar to them, and not clinical, diagnostic criteria terminology that would correlate perfectly to the language used in the *DSM-5*. For example, one respondent listed the following five symptoms in response to the survey question asking her to list five symptoms of anxiety: "Poor grades," "Crying," "Withdrawn from activities," "Ritual activities ie [sic] always wearing same clothes on certain day," "nervousness." This respondent was given credit for listing five symptoms of anxiety.

4.3.2 Listing of Depression Symptoms

The second question on the pre- and post-surveys asked respondents to list five symptoms of depressive disorders in school-aged students. The percentage of respondents who correctly identified five symptoms of depressive disorders in the pre-survey was 95% or 19 of 20 respondents. The percentage of respondents who correctly identified five symptoms of depressive disorders in the post-survey was 100% or 17 of 17 respondents.

It is of importance to note that the respondents, who are all educators, provided responses which used terminology that would be familiar to them, and not clinical, diagnostic criteria terminology that would correlate perfectly to the language used in the *DSM-5*. For example, one respondent listed the following five symptoms in response to the survey question asking her to list five symptoms of depression: "sadness," "frustration," "tiredness," "wanting to go to the nurse all the time," "lack of motivation to do schoolwork." This respondent was given credit for listing five symptoms of depression.

4.3.3 Teacher Ratings of Their Mental Health Literacy

Participants were also surveyed using Likert-scales, which they used to rate their own literacy about internalizing disorders in school-aged students, specific influences and contributing factors to children being at risk for developing internalizing disorders, and knowledge about supports and interventions for students with depression and anxiety that could be used in the classroom setting. These supports and interventions included in the survey questions were specifically focused on in the reading and book study sessions. The Likert-scales used a five-point scale where 1 was "No Understanding" and 5 was "Completely Understand."

The results of the t-survey analysis are represented in Table 6 on the following page.

Table 6. T-Survey Table Results

Question	Pre-survey v. Post-survey	Number of Obs	Mean	Difference	Statistically significant difference?
Internalizing Disorders in Children and Adolescents	Pre	16	2.06	2.19	Yes
	Post	16	4.25		
Biological Influences	Pre	16	2.06	2.13	Yes
	Post	16	4.19		
Family Influences	Pre	16	2.69	1.63	Yes
	Post	16	4.31		
Psychological Stress and Life Events	Pre	16	2.69	1.94	Yes
	Post	16	4.63		
Cognitive Influences	Pre	16	2.19	2.06	Yes
	Post	16	4.25		
Behavioral Influences	Pre	16	2.44	2.06	Yes
	Post	16	4.50		
ABCDE Model of Learned Optimism	Pre	15	1.2	2.93	Yes
	Post	15	4.13		
Self-Monitoring and Self-Control Training	Pre	15	1.93	2.40	Yes
	Post	15	4.33		
Emotional Education	Pre	15	1.80	2.53	Yes
	Post	15	4.33		
Relaxation Training	Pre	15	2.33	2.13	Yes
	Post	15	4.47		
Modeling of Appropriate Responses to Anxiety	Pre	15	1.93	2.27	Yes
	Post	15	4.20		
Social Skills Training	Pre	15	2.00	2.33	Yes
	Post	15	4.33		

The final column in Table 6 shows whether the differences in scores in the pre- and post-survey were statistically significantly different from zero. As all scores were statistically significant, this means that, on average, the surveyed participants self-reported increasing their overall knowledge of these concepts after participating in the nine-week book study session.

A number of the outcomes regarding influences on anxiety and depressive disorders in school-aged children should be noted. Participants appeared to understand that family influences can contribute to students developing internalizing disorders (difference in mean from pre- to post-survey = 1.63) and that psychological stress and life events are contributing factors (difference in mean from pre- to post-survey = 1.94). However, the contributing factors of influence which participants reported the greatest increase in literacy were biological influences (difference in mean from pre- to post-survey = 2.13), cognitive influences (difference in mean from pre- to post-survey = 2.06), and behavioral influences (difference in mean from pre- to post-survey = 2.06). This suggests that participants recognized that they did not know about these influences before the book study.

Regarding specific supports and interventions for anxiety and depressive disorders, participants reported increases in literacy about the ABCDE Model of Learned Optimism (difference in mean from pre- to post-survey = 2.93) and Social and Emotional Education methods (difference in mean from pre- to post-survey = 2.53).

4.3.4 Journals

In addition to responding to the quantifiable questions, teachers addressed their literacy about internalizing disorders in elementary students in the journal responses. After each of the three book study sessions, participants responded to the following prompt:

Thank you again for participating in the book study session. Please help me understand how you are making meaning out of the readings and discussions by providing a reflection on what you have learned from the reading and discussion in this week's session. As an example, you may have connected something you read or we discussed to a previous or current interaction with a student.

In each of the opportunities for participants to complete journal entries, participants commented on their literacy about depression and anxiety in the students they teach. In journal entry number one, respondents commented on their literacy in various ways. Some examples follow:

"I couldn't understand how this student could actually have an anxiety disorder when exhibiting so many externalizing behaviors/disorders. Now I understand that anxiety can present in different ways."

"For example, I didn't realize that anxiety and depression were so closely connected."

"Also, we often talk about anxiety in children, but I didn't realize all of the characteristics of anxiety."

"I never realized how many different ways anxiety can present itself, sometimes being the complete opposite of my preconceived ideas."

Some examples from journal entry number two are:

"In my experience, I've seen many students being treated with behavioral strategies. Teachers will say the child is defiant, bad, sensitive, a crier, can't sit still or listen, etc., and that they need on medication for ADHD or a sticker chart, which will be implemented for behavior, which serves as a temporary fix."

"Since mental health education will most likely become yet another area for teachers to address, appropriate training for the educators will need to come first . . . and soon."

In journal entry number three, the following are examples:

"The biggest thing that I keep going back to is that anxiety can present itself in ways that you would not expect - especially in acting out and disruptive behaviors. Currently I have a student who is spiraling out with disruptive behaviors, hitting, yelling, etc., prior to reading this book, I would never have thought anxiety could have been at the root of his behaviors."

"My takeaway from participating in this research study would be understanding how very important mental health is to a student's well being, socialization, and academic progress."

4.4 How Do Educators Report Feeling About Learning About Elementary Students' Internalizing Mental Disorders

This research question was addressed during discussions in the book study sessions and journal responses. Both during the book study sessions' discussions and in the completed journals entries, participants reported a range of emotions related to learning about how depression and anxiety symptoms and disorders present in elementary students. Additionally, participants expressed various emotions concerning learning about strategies and interventions teachers can use within the context of the classroom with students who appear to have or are identified with depressive and anxiety disorder symptoms.

At the beginning of each book study session, this researcher asked the participants to write an answer on a sticky note about the following three questions:

1. How were you feeling when you read the assigned chapters?

2. What was one thing you were surprised to learn from the assigned chapters?
3. What is one new thing that you learned from the assigned chapters?

With little prompting or intervention from this researcher, the participants engaged in discussions about their answers to these questions. The conversations were robust and lively. The participants verbalized how surprised they were to learn about how depression and anxiety manifests in children and how many times they may have misunderstood behaviors exhibited by previous students.

To recall, participants answered the following journal prompt after each of the three book study sessions:

> Thank you again for participating in the book study session. Please help me understand how you are making meaning out of the readings and discussions by providing a reflection on what you have learned from the reading and discussion in this week's session. As an example, you may have connected something you read or we discussed to a previous or current interaction with a student.

The first book study session was framed by the first two chapters the participants were assigned to read before the session. These first two chapters provided an overview about depression and anxiety in school-aged students and how these disorders can be developed and maintained. All of the feelings the teachers expressed in their journal entries were reported within the context of reading and discussing these two chapters. After the first book study session, two participants (10.5%) reported feeling regret. One of the participants wrote this:

"As I read about depression, I can't help but feel overwhelmed with sadness, heartbreak, and worry. I don't know that I've ever recognized depression in one of my students but there is so much more to it than just being sad and withdrawn."

Six participants (31.5%) reported feeling hope. The following excerpts illustrate this feeling:

"I am excited to keep reading to learn more about anxiety, how it can present itself, and hopefully techniques and strategies I can use."

"I'm excited to learn strategies I can implement to help these students become more available for learning and successful social interactions."

The second book study session was framed by the two chapters participants were assigned to read before the session. The chapters assigned for the second book study session focused specifically on social and emotional learning strategies and an example curriculum resource, depressive symptoms and disorders, and supports and interventions for depressive symptoms and disorders. All of the feelings the participants expressed in their journal entries were reported within the context of reading and discussing these two chapters. At the conclusion of the second book study session, two participants (11.1%), described feelings of regret. One wrote this:

"This book study has been pretty eye opening in good and sad ways. Good because I was able to learn new techniques that I can implement into my classroom with my students. Sad because it really brought to the forefront the lack of mental health awareness in our schools."

Two participants (11.1%) expressed feelings of relief. One participant wrote this:

"The discussions we had were almost relieving. I think most of us feel the same way and we want to do all that we can for our students, but at times we feel we don't have the tools to do this, especially when it comes to their mental health. It was reassuring to hear that we aren't the only ones feeling that way."

Six participants (33.3%) expressed feelings of hope, as shown by one of their comments:

"As I continued to read about SEL and more about the program, Strong Kids, I again felt hopeful and excited for where education is heading."

The third book study session was specifically focused on two chapters about anxiety symptoms and disorders, and supports and interventions. In the journal responses following the third session, one participant (5.8%) reported regret.

One participant (5.8%) reported feeling overwhelmed, stating the following:

"At times, I have found this book overwhelming because each chapter I read I found to be as or more important than the last."

Eight participants (47%) reported feeling hopeful, as illustrated by the following:

"I felt hopeful that there are so many programs and techniques out there that have been successfully used with children who suffer from some type of internalizing disorder."

"I feel I have gained a great deal of knowledge about symptoms, causes, and solutions to these disorders through this book study. I know I will be able to apply some in my classroom and will keep the book handy to refer to through my career."

"At the end of the day, my hope is that other educators (both new to the field and veteran teachers) have the opportunity (or are required) to have extensive training in anxiety and depression in children. We owe it to the lives we touch each day. Thank you for this opportunity. It was very worthwhile."

4.5 How Does Professional Development in the Form of a Book Study Influence Teachers' Reported Self-Efficacy in Providing Supports and Making Appropriate Referrals for Elementary Students with Internalizing Mental Disorders in K-5 Classrooms?

Throughout all three book study sessions and again in the three journal entries, participants commented both on the positive experiences they felt as a result of participating in a book study and in their increased ability to properly refer students with whom they have concerns regarding anxiety and depressive symptoms. After the first book study session, ten of the 20 (50%) participants wrote about the positive experiences they had with the assigned reading and the conversations in the book study session. Some examples of these entries are:

"I believe this book or one like it should be part a mandatory pre-service teaching curriculum."

"I especially enjoyed our book study discussion. I was able to relate with the other educators in the room when we discussed the signs of anxiety in depression in our students and the ways that they dealt with that particular student."

Upon completion of the second book study session, two (11.1%) of the participants wrote journal entries about positive experiences related to the book study sessions and reading. One participant wrote:

"With the appropriate training and understanding of mental health and its benefits I feel teachers would be wonderful advocates and helpers to their students."

Finally, five (29.4%) participants wrote about positive experiences after the third book study session. Some examples are illustrated here:

"I feel I have gained a great deal of knowledge about symptoms, causes, and solutions to these disorders through this book study. I know I will be able to apply some in my classroom and will keep the book handy to refer to through my career."

"This past weeks [sic] readings on anxiety was very enlightening."

Regarding referrals, six (31.5%) participants discussed overlooking issues or not taking action such as making a referral in the past.

4.5.1 Post-Survey Vignette Analysis

To recall, two vignettes were presented to participants in the post-survey in an effort to evaluate whether the participants had a greater ability to recognize the ways depression and anxiety manifest and present in the students they teacher, and if they would comment upon opportunities for referrals. The vignettes and related questions posed to the participants are as follows:

1. Suzanne, a nine-year-old female, has been requesting to go to the nurse's office almost daily for the last two weeks due to complaints about stomachaches and headaches. She also has become increasingly irritable during math instruction and often refuses to come into the school in the morning without her mother holding her hand. Though her grades are all A's, her mother shared that she is crying every night about how hard her math homework is for her. Please comment about your concerns about this student and what steps you would take to support her moving forward.
2. John, an eleven-year-old male, is in fifth grade. Until recently, he had average grades and was involved with a number of sports teams outside of school. Lately, he has been absent from school, no longer wants to play on his sports teams and is complaining in school about not being able to focus on doing his work. He also told

the school nurse that he is tired all the time and his appetite has decreased over the past few weeks. Please comment about your concerns about this student and what steps you would take to support him moving forward.

All seventeen participants (100%) who completed the post-survey completed a response to question one. The question focused on a school-aged child experiencing multiple symptoms of an anxiety disorder. Fourteen of the seventeen participants (82.5%) specifically stated concerns about the anxiety symptoms that were embedded in the vignette. All seventeen participants (100%) stated that they would engage in providing supports either in the classroom, by referring to a counselor, administrator, parent, or team of educators, or engage both in providing supports in the classroom and involving others.

The second vignette focused on a school-aged student experiencing multiple depressive symptoms. Twelve of seventeen (70.5%) participants specifically stated concerns about the depressive symptoms that were embedded in the vignette. Sixteen of seventeen (94%) participants stated that they would engage in providing supports either in the classroom, by referring to a counselor, administrator, parent, or team of educators, or engage in both providing supports in the classroom and involving others. Four respondents (23.5%) specifically stated that "John" should be evaluated by a medical doctor in order to rule-out physical reasons for the symptoms he is experiencing.

4.6 How Does the Book Study Influence K-5 Teachers' Everyday Pedagogy?

Throughout the book study discussion sessions and embedded in the journal entries, participants reflected on their classroom practices, mental health support and intervention topics,

and their role and the role of other educators within the context of assisting students with anxiety and depressive symptoms and disorders.

In their first journal submission, five (26.3%) participants focused on how they might handle things differently in the future after learning about depressive and anxiety disorders. This thought is reflected in these comments:

"I wonder if I would have intervened in a different way if I had the information then that I read in chapters 1 and 2. Would I have noticed any signals earlier?"

"I am now thinking more about current students that I work with and wondering if they could be going through depression. I now feel that I can reach out to counselors if I see any concerning behaviors."

After session two, one (5.8%) participant reflected on how she might do things differently after book study session three. She stated:

"As I read, I appreciated the knowledge and exposure so that I can 'bring more to the table' and offer suggestions for supporting students, knowing that I will also have other team members to offer suggestions and together, we develop a plan of intervention."

4.6.1 The Role of the Educator

As the book study discussion sessions progressed from the first to third sessions, the participants increasingly began to verbalize confusion and distress about how they could possibly accomplish all of the demands placed upon them to assist students with achieving academic success while also attempting to use strategies and interventions that assist students with symptoms that emanate from internalizing disorders.

To recall, the topics assigned for pre-reading before the first book study focused on an overview of internalizing disorders and how they develop and are maintained. The chapters did not focus on potential supports or interventions for educators to use in the classroom. In both the first book study discussion session and the associated journal entry, none of the participants mentioned what support or intervention role should be assigned to any type of educator, non-school mental health professional, family members, or societal member.

As discussed in Chapter Three, the second session's pre-reading topics focused on social and emotional education strategies and supports and interventions for depressive disorders; and the third session's pre-reading topics focused on supports and interventions for anxiety disorders. Fifteen (83.3%) participants commented on the role of the teachers. This is reflected in the following entries:

"I believe that indeed I have taken the role of a counselor."

"I have made attempts over time to develop a more cohesive way to integrate such skills training and mindful practice into my work with students and have not been consistent."

"I am ready and willing to help prevent internalizing disorders and other types of problems."

"I feel that these are positive steps to bringing awareness, prevention, and intervention to all students and their families. I look forward to the steps I can take to provide more support to my students and their families."

"In my mind, teaching students how to manage their emotions and relationships will also not only prevent anxiety, and depression, but bullying as well. "

Ten (55.5%) participants reflected on the role of the counselor. Some of their comments are as follows:

"I think I am still learning about the line between what educators can and should do to support students in their spaces versus what guidance counselors can and will do when they meet with students with these diagnoses."

"I do agree that each school should have a full time counselor. It's very difficult to manage a student who is having difficult day all on your own when you are in the middle of teaching 20–25 other students."

"Again in Chapter 8, I believe the role of the classroom teacher is prevention of internalizing disorders and some intervention using the supporting materials mentioned. However, intervention plans need to be created and utilized in a collaboration with guidance counselor, parents and classroom teacher based on a student's individual needs."

"All schools need full time guidance counselors. I rely and need their guidance to best support my students."

Ten participants (55.5%) wrote about the role of the school district. Some of their entries were as follows:

"If schools don't do something now to provide students with the tools to deal with negative, internal feelings in a constructive way, it will only get worse later, for them and society as a whole."

"It would be ideal for our district to develop a core set of lessons and practices for each grade level so that there is continual skills building and practice for all students."

Five (27.7%) of the participants wrote about the role of society and the family. Two of the participants wrote the following:

"I believe that society plays a significant role in our school system and the decisions made come from the current ideals out there. Perhaps if society is better educated and aware that

intervention and/or diagnosis for mental health and/or social emotional needs is not taboo, but is indeed an area that needs to be addressed with respect, then the stigma may be removed and our young children can be treated effectively and appropriately."

"It was fascinating and inspiring to read that some states mandate social emotional programming in their schools."

The third journal entries continued to reflect the participants' feelings about the various roles educators and non-educators, alike, might share with providing supports and interventions to school-aged students with internalizing disorders. Seventeen (100%) of the entries reflected these thoughts. The following are examples of those entries:

"I am at the stage of understanding where I am struggling with what to do with what I know. It is often difficult to know how to communicate about behavioral concerns without using terminology that requires a medical diagnosis."

"Learning about the second step, listing fears, was at first something I didn't think I could handle. But thinking about a handful of students, who I suspect have real fears that impede them from being the best students they can be, has made me realize it is worth trying."

"The bottom line is all teachers need more knowledge on anxiety and depression with our students. Mental health should be as important as [state exam] scores....really!"

"I have been trying to use different strategies that were in the book (stories and journaling)."

Thirteen (76.4%) of participants discussed their beliefs about the role of the school counselor. Some of their comments follow:

"There are other strategies in these chapters though, that I do question if it should come from the guidance counselor or the classroom teacher."

"The social skills training is being handled by our guidance counselors, with support from classroom teachers, and I think this remains the best practice."

"Our guidance counselor has also helped me prepare plans for students struggling with some school anxiety, walking them through their actions and reactions to whatever worries them at school."

Three (17.6%) participants mentioned the role of the school district. One of the participants stated the following:

"In general, teachers shouldn't wait for a district plan to be adopted or for a counselor to be available. (However, staff training would be VERY beneficial.) The students need help now."

Finally, two (11.7%) of the participants stated the role of non-school mental health professionals. One of the participants said, "Personally, I would love to continue the discussions we started, provide professional development for all staff on mental health disorders and appropriate interventions, add guidance counselors and have consultation/professional development from experts in the field." Two (11.7%) of the participants also mentioned the role of society and family. One of the participants said, "My thoughts continue to come back to the fact that when I have students with mental health concerns, I will be talking with the school support team, as well as, the child's family. I do not anticipate that I will have to decide alone which strategy to use because of the support teams in our schools."

Now we turn to the discussion about the implications of these findings.

5.0 Discussion

5.1 Introduction

This study attempted to extend a significant body of ongoing research within the Canadian public school systems and their teacher preparation programs. The research focuses on educator mental health literacy and efficacy of pre-service coursework and professional development for practitioners (Flett & Hewiit, 2013; Froese-Germain & Riel, 2012; Ireland, 2017; Kutcher, Wei, McLuckie, & Bullock, 2013). Underlying these programs is the understanding that when teachers engage in appropriate coursework and professional development, their self-efficacy, literacy, and practices can improve.

Further support for this study derives from three sources. First, the vast majority of children and adolescents in the United States attend public schools (Anderson & Cardoza, 2016; Snyder et al., 2016) and are, therefore, influenced and supported by the educators in whose classrooms they learn. As 10–20% of those children and adolescents will have a mental disorder (National Institute of Mental Health, 2016; World Health Organization, 2016), the educators working with them throughout a substantial period of their childhood and adolescence can have a significant impact on supporting them in classrooms and referring them to appropriate mental health systems. It follows that increasing the mental health literacy of educators about school-aged students' depression and anxiety disorders can increase their self-efficacy to recognize students who may be struggling with depressive and anxiety symptoms and disorders, to provide supports and interventions in the classroom for those students, and to have the necessary awareness to refer these students to support services outside of the classroom.

Second, previous studies about the mental health literacy of educators has established that, while they know they lack substantial knowledge about mental illness that affects the students they teach (Andrews et al., 2014; Brown et al., 2006; Miller et al., 2012; Reinke et al., 2011), educators both desire to increase their knowledge and believe they should increase their knowledge (Reinke et al., 2011; Shah & Kumar, 2012). The nine-week professional development book study program developed for this study centered on a resource book, *Helping Students Overcome Depression and Anxiety* (Merrell, 2008), written specifically for such educators.

5.2 Limitations

No research study exists without limitations. Most notably, the limitations of this study convey caution to the reader when attempting to generalize findings from this study to other settings and other public school educators. While 20, K-5 elementary educators from one U.S. suburban school district participated in this study, this does not represent the breadth of educational settings and educators in public schools across the United States.

In addition, research about this subject as it relates to public school settings and educators in the United States is sparse; therefore, the literature review and framework for this study relied almost entirely on research completed in public school settings outside of the United States. Political, economic, cultural, and social influences unique to each country shape public school systems, and the life and educational experiences of the educators and school-aged students in those systems. Therefore, this study's findings can only represent the backgrounds, experiences, and literacy of these twenty participants.

The number of participants for this initial book study was small. Therefore, it will be important for future research to include a larger sample size and a sample that reflects both public and non-public school settings. While this study sought to have a specific understanding about what educators in elementary settings understand about anxiety and depression, future researchers should consider replicating the study with educators in 6-12 grade and post-secondary education settings.

Providing professional development for practicing educators is partially restricted by the limited hours available to provide training. Although professional development training days are set aside in public schools, the total number of days is limited and is filled with training that covers district initiatives associated with pedagogy and school systems. This study required participants to *volunteer* their time to read, journal, and meet outside of normal work hours. As such, while the participants expressed their enthusiasm to attend the professional development and learn from the study's embedded course, there were varying levels of response rates to the pre-survey, post-survey, and journal entry requirements.

While the limitations of this study diminish the scope of this study's impact, the findings remain valuable. The foundation this study provided for future studies is the basis for the next two sections of this chapter. The next sections focus on (a) how future studies could be improved and (b) how educational leaders in university and public school settings could develop pre-service coursework and professional development for educators.

5.3 Implications for Further Research

The journal entries and discussions in the book study evolved through stages similar to those identified in other change research on K-12 (see Hall & Hord, 2006). Participants initially expressed hope about having a greater understanding of the mental health struggles of their students. Then, teachers began to see how their lack of literacy may have affected their decisions and interactions in the past, sometimes expressing regret. Lastly, they grappled with how to define their role as classroom teacher as compared with the roles of school counselors, administrators, families, and non-school based mental health clinicians. As the participants focused on specific supports and interventions for anxiety and depression, their conversations and journal entries became more impassioned with sentiments of feeling overwhelmed by the weight of providing both emotional and academic supports and interventions for their students.

Future research could focus on delving more deeply into how teachers view themselves within the context of what they can and cannot—and want and do not want—to do within the classroom setting to support, intervene, and refer students with anxiety and depressive disorders. Additionally, studies focusing on how well educators implement specific mental health supports and interventions with fidelity in classrooms could be conducted, using additional measures of *actual* practice, in lieu of self-reports.

5.4 Implications for Professional Development

To recall, the professional development course created for this study was administered over a nine-week consecutive period, focused on one book, included three 60-minute discussions, and

encouraged individual reflection and journaling. Now that we know that educators who participated in professional development in the form of a book study were able to increase their literacy about depressive and anxiety disorders in K-5 students, the implications for practice are discussed here. Specifically, this section reviews the importance of clearly defined timetables and the learning activities included in the professional development. Now that this study has established that professional development can increase the literacy of educators, a compelling argument can be made for school districts to provide this professional development to its educators.

5.4.1 Timetable

A professional development course of this type could be extended over a greater amount of time by breaking the course into three, distinct sessions. For example, the first three-week session should focus on setting the stage for understanding depression and anxiety in students by providing an overview of how these symptoms and disorders manifest and maintain. This session is of the utmost importance for providing the foundational scaffolding necessary for learning about supports and interventions specific to both anxiety and depressive disorders. Second, a three-week course focused on anxiety and specific ways to support and provide interventions to students with symptoms of anxiety and anxiety disorders in the classrooms could follow the overview. Third, educators could participate in a three-week focused course on depression and specific supports and interventions for students with symptoms of depression and depressive disorders in classrooms. Once this course has been offered to a District's educators, consideration for revisiting aspects of this training should be planned. In other words, shorter "booster" type sessions should be provided to educators. As is the case with developing any type of knowledge or skill set, multiple exposures to information in varying forms is necessary to maintain and increase the knowledge and skill set.

5.4.2 Learning Activities

This researcher would not recommend shortening the course by removing the discussion and reflection elements of the course. These components of the course appeared to assist the participants to make great sense of what they were reading and discussing, and how they were reflecting on the content of what they were reading as it correlated to their everyday pedagogy. This recommendation is also based on the specific findings of this study's survey questions, which reflected self-reports of an increase of mental health literacy of educators. Additionally, the participants repeatedly expressed feelings of hope about increasing their mental health literacy and improving their classroom practices due to the information presented to them in the reading and group discussions. To exclude the discussion component would reduce the number of opportunities educators would have to hear the experiences of fellow educators and to find strength in sharing and making sense of their own experiences.

Specific thought should be given to creating learning activities for pre-service and school leaders, alike. While the learning activities used in this study focused on current practitioners, these activities can be modified to reflect the learning needs of pre-service teachers and the skill sets necessary for school leaders to navigate additional social systems present in public school systems. For example, an entire semester's course could be created for pre-service teachers that focuses on both an overview of mental illness in K-5 children and specific categories of mental illness such as depressive and anxiety disorders. This would provide pre-service teachers with foundational literacy about mental illness before entering the classroom as a practitioner. Additionally, consideration should be given for including mental health literacy as a component of initial certification/licensure testing for both pre-service teachers and school leaders. Should the expectation of foundational mental health literacy be part of general pedagogical knowledge

necessary for certification, then we should find new practitioners and school leaders better equipped to manage the mental illness issues they will encounter in their classrooms and their schools. School leaders could have professional development or coursework created for them that focuses on all of the previously mentioned mental illness topics and how to work with families, social service systems, and outside mental health providers to ensure continuity of care across all settings of a child's life.

5.5 Conclusion

The contribution from these findings is a greater understanding about the specific understanding, or literacy, educators have regarding how depression and anxiety manifest and are maintained in school-aged students. Most specifically, (a) we have learned that educators recognized that they possessed little or no knowledge about childhood anxiety and depression and (b) we have a greater understanding about the depth and breadth of this lack of literacy. The gravity of their lack of mental health literacy cannot be overstated. Both in their responses to queries focused on specific aspects of depression and anxiety literacy and in their journals, these educators clearly stated that they have significant misunderstandings and lack of knowledge about these childhood disorders that are prevalent in their classrooms. This greater understanding about the nature of their knowledge and misinformation provides us with the essential foundation for creating appropriate and robust professional development for them.

This study also establishes that providing professional development, in the form of a book study, can substantially increase educators' literacy about childhood depression and anxiety. Moreover, the group discussions and opportunities to reflect on the readings and discussions

assisted the educators with internalizing their knowledge, apparently influencing their daily practices.

Though past and present research points to public schools as the ideal centralized setting for addressing the mental health issues that affect 20 percent of school-aged students, additional research has shown that neither sufficient professional development nor supports to address these issues have been successfully established for educators. Numerous studies have concluded that public school educators do not have the required mental health literacy necessary to adequately provide the supports, interventions, and referrals necessary to address the mental health issues which plague one in five children in their schools (Brown et al., 2006; Miller et al., 2012). This study sought to add to the limited body of research in the United States about educators' literacy about anxiety and depression in the K-5 student population. The findings of this study suggest that the depth and breadth of educators' lack of literacy about anxiety and depressive disorders is significant. Yet, teachers serve as the gatekeepers for the vast majority of children and adolescents in the United States.

As they dedicate their professional careers to the students whom they serve, educators desire a deeper understanding of the needs of children and adolescents across the academic, social, emotional, and moral developmental domains. Incorporated in their desire to support these needs is finding a way to understand and address school-aged students' mental illness. This study suggests that the optimal starting point for addressing this problem is by providing pre-service coursework, professional development, and systemic supports to the educators who have the potential to develop a positive impact on school-aged students with mental health issues and mental disorders. To do less shortchanges not only these students but also their teachers and classmates.

Appendix A Recruitment Script for Dissertation Study

As some of you may be aware, I am a doctoral student at the University of Pittsburgh and am planning to conduct research on the mental health literacy of K-5 educators regarding internalizing mental illness disorders in children. Research has shown that while twenty percent of children have a diagnosable mental illness disorder, very little pre-service coursework and professional development has been created for educators in the United States that focuses on children and adolescents' mental health literacy.

I have developed a two-pronged study about K-5 teacher mental health literacy that seeks to understand what teachers do and do not know about children's depression and anxiety and in what ways, if any, participating in a book study can help teachers use greater literacy to respond to these mental illness disorders. Over the course of nine weeks, teachers who participate in the study will read chapters from a book provided by the District about helping students overcome depression and anxiety and discuss those chapters with me during three, one hour, book study sessions. Additionally, participants will take a short pre and post-survey based on the chapters that are read and the book study sessions and will answer journal questions between the sessions.

All data gathered from the pre- and post-surveys and journal entries are anonymous. Responses to the surveys and journal entries will be collected without your name. Your participation is voluntary and you may withdraw from this project at any time. Would you be interested in participating? If so, I can be contacted via email at or by phone at 412 344-2142. Please contact me if interested or if you have any questions.

Appendix B Consent to Act as a Participant in a Research Study

Title: Assessing Teacher Mental Health Literacy Regarding Grades K-5 Children's Anxiety and Depressive Disorders

Principal Investigator: Melissa M Nelson, M.Ed, M.Ed, Graduate Student

University of Pittsburgh, School of Education

Department of Administrative and Policy Studies.

Questions About the Study: If you have any questions about your rights as a research subject or wish to talk to someone other than the research team, please call the University of Pittsburgh Human Subjects Protection Advocate toll-free at 866-212-2668.

Introduction: This study is being conducted to assess the mental health literacy of teachers regarding grades K-5 children's anxiety and depressive disorders. Potential participants in this study include general and special education teachers working in kindergarten through fifth grade in one research study site. The participants can be teaching in any content area, physical education, music, art, library, Spanish, or special education. You are not under any obligation to participate in this research study.

Time Commitment: Participants will be asked to participate in three, separate 60-minute book study sessions over the course of nine weeks. Participants will be asked to read seven chapters from the book, "Helping Students Overcome Depression and Anxiety" (Merrell, 2008) over the course of the nine week study, each of which may take from 30-60 minutes to complete. In addition to these sessions, participants will be asked to complete two surveys and three journal prompts, each of which may take from 5-20 minutes to complete. The total expected time commitment from the training sessions is 180 minutes. The total expected time commitment for

reading the chapters is 210-420 minutes. The total expected time commitment from the completion of surveys is 30-120 minutes.

Research Activities: The principal researcher will conduct and lead the activities detailed below:

- Three, separate, 60-minute book study sessions will be held over the course of nine weeks.
- Each training session will occur from 4:00 pm – 5:00 pm
- Training sessions will be held at the research site.
- The principal researcher will lead all three of the book study sessions.
- Participants will read seven chapters from the book, "Helping Students Overcome Depression and Anxiety" (Merrell, 2008). These chapters will be read over nine weeks.
- Participants will use an online system to complete two surveys and three journal prompts over the course of nine weeks. Participants will not be identified by name in their responses.

Study Risks: The known risks for participant in this study are minimal and not more than you would experience during your daily life. There is an infrequent risk of breach of confidentiality when completing the surveys online. Although every reasonable effort has been taken, confidentiality during internet communication activities cannot be guaranteed and it is possible that additional information beyond that collected for research purposes may be captured and used by others not associated with this study. There is also an infrequent risk of emotional discomfort when participants are learning about and discussing mental illness concepts in a group setting with colleagues.

Study Benefits: There is no direct benefit for participating in this study.

Privacy and Confidentiality: The privacy and confidentiality of study participants will be protected by using a masking system so that no survey responses are linked to personally identifiable information. Study participants will choose their own masking code that is not known to the principal researcher, so that the researcher will have no knowledge of personally identifiable information. No identifiable information will be placed into research records. Per University of Pittsburgh policy, all research records must be maintained for at least seven years following final reporting or publication of a project. Authorized representatives from the University of Pittsburgh Research Conduct and Compliance Office may review your data solely for the purpose of monitoring the conduct of this study. Names of participants will not be share or associated with any individual results.

Right to Withdraw from Study Participation: You can withdraw from this research study at any time. You can also withdraw your authorization for the researcher to use your survey responses for the purposed described above. This means that you will also be withdrawn from further participation in this research study. Any research information obtained as part of this study prior to the date that you withdrew your consent will be destroyed. To formally withdraw from this research study, you should provide verbal or written notification of this decision to the principal researcher at the address listed on the first page of this from. Your decision to withdraw from this study will have no effect on your employment status. It will also have no effect on your current or future relationship with both the principal researcher and the University of Pittsburgh.

Voluntary Participation: Your participation in this research study is entirely voluntary. If there are any words you do not understand, feel free to ask about them. The researcher will be available to answer your current and future questions. Whether or not you provide your consent

for participation in this research study will have no effect on your employment status. It will also have no effect on your current or future relationship with both the principal researcher and the University of Pittsburgh.

Consent to Participate: The above information has been explained to me and all of my current questions have been answered. I understand that I am encouraged to ask questions, voice concerns, or complaints about any aspect of this research study during the course of this study, and that such future questions, concerns, or complaints will be answered by the researcher listed on the first page. I understand that I may contact the Human Subjects Protection Advocate of the IRB Office, University of Pittsburgh (1-866-212-2668) to discuss problems, concerns, and questions; obtain information; offer input; or discuss situations that occurred during my participation. By signing this form I agree to participate in this research study. A copy of this consent form will be given to me.

_____

Printed Name of Participant

_____

Signature of ParticipantDate

Investigator Certification: I certify that I have explained the nature and purpose of this research study to the above-names individual (s), and I have discussed the potential benefits, and possible risks of study participation. Any questions the individual(s) have about the study have been answered, and I will always be available to address future questions, concerns, or complaints as they arise. I further certify that no research component of this protocol was begun until after this consent form was signed.

Melissa M Nelson Principal Researcher

Printed Name of Person Obtaining Consent Role in Research Study

_____

Signature of Person Obtaining Consent Date

Appendix C Pre-Survey

1. Please list five symptoms of depressive disorders in children and adolescents.

2. Please list five symptoms of anxiety disorders in children and adolescents.

For the question below, please rate your understanding of Internalizing Disorders in children and adolescents where 1 is No Understanding and 5 is Completely Understand:

3. Internalizing Disorders in children and adolescents

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

For the question below, please rate your understanding of each of the following categories of contributing factors to Internalizing Disorders where 1 is No Understanding and 5 is Completely Understand:

4. Contributing factors to Internalizing Disorders:

Biological Influences

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Family Influences

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Psychological Stress and Life Events

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Cognitive Influences

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Behavioral Influences

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

For each of the classroom techniques used for addressing internalizing disorders listed below, please rate your understanding of the techniques where 1 is No Understanding and 5 is Completely Understand:

5. Classroom Techniques:

ABCDE Model of Learned Optimism

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Self-Monitoring and Self-Control Training

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Emotional Education

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Relaxation Training

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Modeling of Appropriate Responses to Anxiety

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Social Skills Training

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Appendix D Post-Survey

1. Please list five symptoms of depressive disorders in children and adolescents.

2. Please list five symptoms of anxiety disorders in children and adolescents.

For the question below, please rate your understanding of Internalizing Disorders in children and adolescents where 1 is No Understanding and 5 is Completely Understand:

3. Internalizing Disorders in children and adolescents

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

For the question below, please rate your understanding of each of the following categories of contributing factors to Internalizing Disorders where 1 is No Understanding and 5 is Completely Understand:

4. Contributing factors to Internalizing Disorders:

Biological Influences

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Family Influences

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Psychological Stress and Life Events

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Cognitive Influences

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Behavioral Influences

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

For each of the classroom techniques used for addressing internalizing disorders listed below, please rate your understanding of the techniques where 1 is No Understanding and 5 is Completely Understand:

5. Classroom Techniques:

ABCDE Model of Learned Optimism

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Self-Monitoring and Self-Control Training

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Emotional Education

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Relaxation Training

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Modeling of Appropriate Responses to Anxiety

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Social Skills Training

No Understanding		**Neutral**		**Completely Understand**
1	2	3	4	5

Please read the following vignettes and answer the questions that follow:

1. Suzanne, a nine-year-old female, has been requesting to go to the nurse's office almost daily for the last two weeks due to complaints about stomachaches and headaches. She also has become increasingly irritable during math instruction and often refuses to come into the school in the morning without her mother holding her hand. Though her grades are all A's, her mother shared that she is crying every night about how hard her math homework is for her.

Please comment about your concerns about this student and what steps you would take to support her moving forward.

2. John, an eleven-year-old male, is in fifth grade. Until recently, he had average grades and was involved with a number of sports teams outside of school. Lately, he has been absent from school, no longer wants to play on his sports teams and is complaining in school about not being able to focus on doing his work. He also told the school nurse that he is tired all the time and his appetite has decreased over the past few weeks.

Please comment about your concerns about this student and what steps you would take to support him moving forward.

Appendix E Journal Prompts

Reflection Journal #1 (After Book Study Session #1)

1. Thank you again for participating in the book study session. Please help me understand how you are making meaning out of the readings and discussions by providing a reflection on what you have learned from the reading and discussion in this week's session. As an example, you may have connected something you read or we discussed to a previous or current interaction with a student.

Reflection Journal #2 (After Book Study Session #2)

1. Thank you again for participating in the book study session. Please help me understand how you are making meaning out of the readings and discussions by providing a reflection on what you have learned from the reading and discussion in this week's session. As an example, you may have connected something you read or we discussed to a previous or current interaction with a student.

Reflection Journal #3 (After Book Study Session #3)

1. Thank you again for participating in the book study session. Please help me understand how you are making meaning out of the readings and discussions by providing a reflection on what you have learned from the reading and discussion in this week's session. As an example, you may have connected something you read or we discussed to a previous or current interaction with a student.

Bibliography

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.

Anderson, M., & Cardoza, K. (2016). *A silent epidemic: Our public schools are struggling to handle millions of students with mental health problems. Here's why*. Retrieved from http://apps.npr.org/mental-health/

Andrews, A., McCabe, M., & Wideman-Johnston, T. (2014). Mental health issues in the schools: Are educators prepared? *The Journal of Mental Health Training, Education, and Practice, 9*(4), 261–272. doi:10.1108/JMHTEP-11-2013-0034

Angold, A., Costello, E. J., & Erkanli, A. (1999). Comorbidity. *Journal of Child Psychology and Psychiatry, 40*(1), 57–87.

Bains, R. M., & Diallo, A. F. (2016). Mental health services in school-based health centers. *The Journal of School Nursing, 32*(1), 8. doi:10.1177/105984051559060

Brown, C., Dahlbeck, D. T., & Sparkman-Barnes, L. (2006). Collaborative relationships: School counselors and non-school mental health professionals working together to improve the mental health needs of students. *Professional School Counseling, 9*(4), 332–335.

Dvorsky, R., Taylor, M. K., & Weist, M. (2012). Teacher-student relationships in mental health promotion. In R. Waller (Ed.), *Mental health promotion in schools: Foundations* (pp. 76–104). Sharjah, UAE: Bentham Books.

Flett, G. L., & Hewitt, P. L. (2013). Disguised distress in children and adolescents "flying under the radar": Why psychological problems are underestimated and how schools must respond. *Canadian Journal of School Psychology, 28*(1), 12–27.

Froese-Germain, B., & Riel, R. (2012). *Understanding teachers' perspectives on student mental health: Findings from a national survey*. Canadian Teachers' Federation. Retrieved from https://files.eric.ed.gov/fulltext/ED544259.pdf

Ghandour, R. M., Sherman, L. J., Vladutiu, C. J., Ali, M. M., Lynch, S. E., Bitsko, R. H., & Blumberg, S. J. (2019). Prevalence and treatment of depression, anxiety, and conduct problems in US children. *The Journal of Pediatrics, 206*, 256–267. doi:10.1016/j.jpeds.2018.09.021

Gowers, S., Thomas, S., & Deeley, S. (2004). Can primary schools contribute effectively to tier I child mental health services? *Clinical Child Psychology and Psychiatry, 9*(3), 419–425.

Griffiths, K. (n.d.-a). *Anxiety literacy questionnaire (A-Lit).* Retrieved from https://rsph.anu.edu.au/research/tools-resources/anxiety-literacy-questionnaire-lit

Griffiths, K. (n.d.I-b). *Depression literacy questionnaire (D-Lit).* Retrieved from https://rsph.anu.edu.au/research/tools-resources/depression-literacy-questionnaire-d-lit

Hall, G. E., & Hord, S. M. (2006*). Implementing change: Patterns, principles, and potholes*. Boston, MA: Pearson, Inc.

Heifetz, R., Grashow, A., & Linsky, M. (2009). *The practice of adaptive leadership: Tools and tactics for changing your organization and the world.* Boston, MA: Harvard Business Press.

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

Ireland, M. L. (2017). Increasing teacher capacity in support student mental health. *The Organizational Improvement Plan at Western University, 11.* Retrieved from https://ir.lib.uwo.ca/cgi/viewcontent.cgi?article=1023&context=oip

Kutcher, S., Wei, Y., & Coniglio, C. (2016). Mental health literacy: Past, present, and future. *Canadian Journal of Psychiatry, 61*(3), 154–158. doi:10.1177/0706743715616609

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. doi:10.1080/1754730X.2013.784615

Merrell, K. W. (2008). *Helping students overcome depression and anxiety: A practical guide* (2nd ed.). New York, NY: Guilford Press.

Miller, L., Taha, L., & Jensen, E. (2012). From guidance to school counseling: New models in school mental health. In C. Clauss-Ehlers, Z. Serpell, & M. Weist (Eds.), *Handbook of culturally responsive school mental health: Advancing research, training, practice, and policy* (pp. 43–56). New York, NY: Springer Science + Business Media.

National Institute of Mental Health. (2016). *Mental illness.* Retrieved from https://www.nimh.nih.gov/health/statistics/prevalence/any-disorder-among-children.shtml

O'Connor, M., & Casey, L. (2015). The Mental Health Literacy Scale (MHLS): A new scale-based measure of mental health literacy. *Psychiatry Research, 229*(1), 511–516. doi:10.1016/j.psychres.2015.05.064

Perou, R., Bitsko, R. H., Blumberg, S. J., Pastor, P., Ghandour, R. M., Gfroerer, J. C., . . . Parks, S. E. (2013). Mental health surveillance among children: United States, 2005–2011. *MMWR Surveillance Summary, 62*(Suppl 2), 1–35.

Reinke, W. M., Stormont, M., Herman, K. C., Puri, R., & Goel, N. (2011). Supporting children's mental health in schools: Teacher perceptions of needs, roles, and barriers. *School Psychology Quarterly, 26*(1), 1–13.

Scouller, K., & Smith, D. (2002). Prevention of youth suicide: How well informed are the potential gatekeepers of adolescents in distress? *Suicide and Life-threatening Behavior, 32*(1), 67–79.

Shah, H., & Kumar, D. (2012). Sensitizing the teachers towards school mental health issues: An Indian experience. *Community Mental Health Journal, 48*(4), 522–526. doi:10.1007/s10597-011-9437-2

Snyder, T. D., de Brey, C., & Dillow, S. A. (2016). *Digest of education statistics: 2015* (51st ed.). Washington, DC: NCES. Retrieved from https://nces.ed.gov/pubs2016/2016014.pdf

Suldo, S. M., Gormley, M. J., DuPaul, G. J., & Anderson-Butcher, D. (2014). The impact of school mental health on student and school-level academic outcomes: Current status of the research and future directions. *School Mental Health*, *6*(2), 84–98. doi:10.1007/s12310-013-9116-2

Vieira, M. A., Gadelha, A. A., Moriyama, T. S., Bressan, R. A., & Bordin, I. A. (2014). Evaluating the effectiveness of a training program that builds teachers' capability to identify and appropriately refer middle and high school students with mental health problems in Brazil: An exploratory study. *BMC Public Health, 14*(1), 210. doi:10.1186/1471-2458-14-210

von Klitzing, K., Döhnert, M., Kroll, M., & Grube, M. (2015). Mental disorders in early childhood. *Deutsches Arzteblatt International*, *112*(21-22), 375–386. doi:10.3238/arztebl.2015.0375

Wilkinson, P. (2009). Conceptualization about internalizing problems in children and adolescents. *Ciência & Saúde Coletiva, 14*(2), 373–381.

World Health Organization. (2016). *Child and adolescent mental health.* Retrieved from http://www.who.int/mental_health/maternal-child/child_adolescent/en/

World Health Organization. (2017). *Health literacy: The solid facts*. Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0008/190655/e96854.pdf