

Mental Health Literacy: Addressing Anxiety and Depression in the Classroom

by

Michelle Wisda Miner

B.S., University of Pittsburgh, 1993

M.A.T., University of Pittsburgh, 1994

M.Ed., Wilmington College, 1998

Submitted to the Graduate Faculty of the
School of Education in partial fulfillment
of the requirements for the degree of
Doctor of Education

University of Pittsburgh

2021

UNIVERSITY OF PITTSBURGH

SCHOOL OF EDUCATION

This dissertation was presented

by

Michelle Wisda Miner

It was defended on

June 7, 2021

and approved by

Melissa M. Nelson, Ed.D., Principal, Mt. Lebanon School District

Charlene A. Trovato, Ph.D., Clinical Associate Professor, Department of Teaching, Learning,
and Leading

Dissertation Director: Mary Margaret Kerr, Ed.D., Professor, Department of Health and Human
Development

Copyright © by Michelle Wisda Miner

2021

Mental Health Literacy: Addressing Anxiety and Depression in the Classroom

Michelle Wisda Miner, Ed.D.

University of Pittsburgh, 2021

As many as 20-25% percent of students show signs of a mental health disorder in the United States today. Anxiety is the number one mental health concern that educators and counselors face worldwide. Educators in the United States lack foundational pedagogical knowledge regarding understanding mental health disorders and the implications of such disorders within elementary classrooms. Without the skills and knowledge needed to address mental health concerns, teachers attempt to meet the complex demands of students but lack the training to help their students succeed.

This study utilized a virtual book study format with an elementary staff. Twenty-seven participants examined three chapters from the book *Helping Students Overcome Depression and Anxiety* by Kenneth W. Merrell (2008). Chapters focused on foundational knowledge of internalizing disorders and framed a common language for discussions surrounding mental health concerns.

Quantitatively, this researcher gathered results through pre- and post- surveys of knowledge. Participants self-rated perception of that knowledge. Qualitatively, this researcher administered an open-ended reflection question at the study's end.

This study utilized pseudonyms for anonymity with 24 paired responses available for analysis through a Wilcoxon Signed Rank Test. This researcher reviewed seventeen open-ended responses through content analysis.

Findings were statistically significant. Participants had increased knowledge gains and increased perceptions of that knowledge. The results showed an initial lack of foundational knowledge and a lack of perceived understanding of mental health concerns specific to depression and anxiety and significant gains for both at the end (post-survey performance was almost a consensus of perfect scores for identifying symptoms of anxiety and depression).

By committing to a research study on mental health literacy, it was evident that educators were willing to learn more and recognized this lack of knowledge. A condensed virtual book study experience significantly impacted foundational knowledge. If we want to address the rise in mental health concerns within schools, we must give staff opportunities and knowledge to do so.

Table of Contents

Preface.....	ix
1.0 Introduction.....	1
1.1 Problem of Practice	2
2.0 Review of Supporting Scholarship	4
2.1 Mental Health Needs and Pedagogical Knowledge	4
2.2 The Whole Child Approach.....	5
2.3 Mental Health Concerns and Special Education	6
2.4 Mental Health and Social Emotional Learning	7
2.5 Mental Health Literacy	9
3.0 Theory of Improvement and Implementation.....	11
3.1 Research Aims	11
3.2 Aim Statement	13
3.2.1 Additional research aims.....	14
3.3 Driver Diagram.....	15
3.4 Research Questions	16
3.5 Methods	17
3.6 Outline for Book Study – All Sessions Over Zoom	18
3.7 Measures.....	19
4.0 Findings.....	22
4.1 Items Related to Self-Reported Understanding (Questions 1 and 2).....	23

4.2 Items Related to Knowledge about Depressive/Anxiety Symptoms (Questions 3 and 4).....	29
4.3 Open-Ended Reflection (Question 5).....	34
4.4 Alignment of Quantitative and Qualitative Results	38
5.0 Discussion.....	39
5.1 Introduction	39
5.2 Discussion of Research Questions	39
5.3 Limitations of this Study.....	43
5.3.1 Format.....	43
5.3.2 Scope.....	43
5.3.3 Limited impact	44
5.4 Implications for Future Research	45
5.4.1 Long-term learning	45
5.4.2 Virtual learning	45
5.4.3 Increased scope.....	46
5.4.4 Mental health literacy training	47
5.5 Comparison Study	48
5.6 Implications for Practice.....	50
5.6.1 Modified professional development.....	50
5.6.2 Increased staff engagement	50
5.7 Conclusions	51
Appendix A Recruitment Script.....	53
Appendix B Pre- and Post-Surveys	54

Appendix C Non-scored Journal Response Questions	56
Bibliography	57

List of Tables

Table 1. Distribution of Responses for All Respondents on Self-Reported Understanding Items.....	23
Table 2. Distribution of Responses for Matched Pairs on Self-Reported Understanding Items	24
Table 3. Frequency of Missing Responses Across Items (Pre-survey).....	25
Table 4. Wilcoxon Signed-Rank Test Results for Comparison of Matched Pre-survey and Post-Survey Self-Reported Understanding Items	29
Table 5. Distribution of Scores for All Respondents on Knowledge Items.....	30
Table 6. Distribution of Scores for Matched Pairs on Knowledge Items	32
Table 7. Wilcoxon Signed-Rank Test Results for Comparison of Matched Pre-Survey and Post-Survey Knowledge Items	33
Table 8. Biggest Takeaways from Content Analysis.....	36
Table 9. Next Steps from Content Analysis	37
Table 10. Mixed Methods Comparison of Results	38
Table 11. Miner Study Qualitative Comparison to Nelson (2019)	49

List of Figures

Figure 1. Mental Health Literacy Aims	13
Figure 2. MHL Driver Diagram	15
Figure 3. Bar Plots of Responses for Matched Pre-Survey and Post-Survey Self-Reported Understanding Items	26
Figure 4. Diverging Bar Plots of Responses for Matched Pre-Survey and Post-Survey Self- Reported Understanding Items	27

Preface

The basis for this research stemmed from my passion for supporting all students by creating inclusive school environments and fostering a sense of belonging for all. With increasing mental health concerns throughout our country, it is ever more essential that we learn and grow as educators to support our most vulnerable students in a way that fosters a strong sense of community and promotes a culture of belonging and success for all.

I would like to thank my research committee: Dr. Melissa Nelson, for her foundational study and thoughtful direction and feedback throughout this process. Dr. Charlene Trovato, for her leadership insights and for encouraging me to think beyond this study. Finally, Dr. Margaret Kerr, for deeply believing in this research and for pushing me to do better and be better. I will forever be grateful for her guidance and inspiration.

I would also like to acknowledge the support I've received from Philip Grosse for his incredible insights into statistical analysis and Sarah Dugan for her impeccable editing. Both have made this research and paper better.

In truth, I could not have accomplished all that I have without my personal support group and the support they've provided me throughout the years. My husband and my three boys are my everything. I've told them, "You can do hard things," but I know that for me, the hardest things are only possible with the support of the ones you love. To my parents, my sister, my family, and friends who have always supported my ambitious goals, I thank you for believing in me and my dreams. And finally, to all of my colleagues and classmates, our work is hard, but it is important. It is essential. A brighter future for all of our students is only possible because of the spark for learning you all possess. Thank you all for your unwavering support.

1.0 Introduction

With the recent outbreak of COVID-19, the World Health Organization (Anwar, 2020) urges those of us who care for children to be mindful of their emotions and look for signals of anxiety and stress. In May 2021, Children's Hospital Colorado declared a state of emergency for youth mental health (2021). Anxiety and depressive disorders among children in the United States and worldwide are becoming ever more prevalent. Anxiety is the number one mental health concern that educators and counselors face worldwide, with a growing percentage of adolescents having a clinical diagnosis (Merikangas et al., 2010). As we create mindful plans for reentry into brick-and-mortar schools, we should consider mental health issues, especially anxiety and depression. One of our most vulnerable student populations will ultimately struggle with mental health concerns as they enter this uncertain and changing environment.

Subsequent concern should be the lack of knowledge and skills teaching staff has to address these mental health issues. Pre-service teaching programs may require one course in behavior and mental health principles (most of these focused on social and emotional learning). As many as 20-25 percent of students show signs of a mental health disorder in the United States today (Bains & Diallo, 2016). Without the skills and knowledge needed to address mental health concerns, overwhelmed teachers are trying to meet the complex demands of students in their classrooms but lack the training to help their students succeed (Minahan & Rappaport, 2012).

1.1 Problem of Practice

Educators in the United States lack foundational knowledge regarding mental health disorders and the implications of such disorders within elementary classrooms. Approximately 20 percent of children will meet the criteria for a mental disorder in their lifetime, and this number is on the rise (Bains & Diallo, 2016). This finding leads to concerns over the competency of teachers to support students who have a mental health disorder within the structure of traditional classrooms. In turn, students with mental health concerns (specifically anxiety and depression) find their social, emotional, and academic development and performance may be adversely affected within the confines of our classrooms. Failure to address these mental health needs is due in part to a lack of mental health knowledge. Educators are often unaware of the basic symptoms, behaviors, and outcomes of mental health disorders and the strategies and interventions available to support them (Nelson, 2019).

Mental health and wellness are coming to the forefront as an area of focus in elementary schools across the country. With the onset of COVID-19 in the Spring of 2020, staff members bring deep concerns about students diagnosed with a mental illness, specifically anxiety and depression, and are looking for tools to support this vulnerable population as we transition back to the classroom. Unfortunately, all too often, the needs of our students are not being addressed as our educators do not have the knowledge and tools to provide support. This trend is evident nationally and internationally as well (Kutcher et al., 2016). Suppose we can create opportunities to provide substantial and meaningful mental health professional development. In that case, we will strengthen the foundational knowledge base of educators, impact practice, and develop systems that will ultimately better serve students with mental health concerns. The following

review of supporting scholarship, specific to elementary students' mental health needs, establishes a base of foundational research.

2.0 Review of Supporting Scholarship

Nationally and internationally, the mental health needs of students are not being met, in part because educators do not have the knowledge and tools to provide such support (Kutcher et al., 2016). Our educational system does not equip teachers with the knowledge and skills to address and support students with mental health needs. An educator's lack of a foundational understanding of school-aged students' mental illnesses, specifically anxiety and depression, is depicted across many research studies (Miller et al., 2013). Children suffering from mental health disorders often avoid and miss opportunities to build relationships and participate fully in the learning experiences that we usually associate with foundational child development.

2.1 Mental Health Needs and Pedagogical Knowledge

Throughout the United States, teacher preparation programs continue to focus on instructional practice. Although research points to the values of a whole-child approach, little to no time is spent training and developing future educators in the area of mental health (Koller & Bertel, 2006). Experiences with foundational knowledge associated with mental health literacy can strengthen teachers' abilities to recognize mental health concerns and then develop and implement strategies to support students' mental health needs within the classroom setting (Shah & Kumar, 2012; Vieira et al., 2014).

Many studies point to a lack of pedagogical knowledge and practical strategies to address and support school-aged students with mental illnesses (Miller et al., 2013). Pedagogical

knowledge refers to the specialized knowledge teachers possess that helps them develop effective learning environments for all students, independent of subject matter (Guerriero, 2017). Pedagogical knowledge and practical strategies are necessary as we look to build mental health literacy among educators.

Educators have little to no explicit knowledge of mental health disorders. Internalizing and externalizing behaviors exhibited by students with a mental illness, specifically anxiety and depression, are often misconstrued and misunderstood. At times, behavior plans, 504 Plans, and Individualized Educational Plans are put in place to support the child when supports within the classroom setting, and targeted strategies utilized by the classroom teacher, could have been of immense value as a mitigating factor.

2.2 The Whole Child Approach

Meeting the needs of each child is at the core of differentiated instruction and equitable learning opportunities. Leading researchers such as Tough (2012), Mraz and Hertz (2015), Greene (2014), and Kluth and Causton (2016) argue for the positive impacts of differentiated instruction to meet each child's individual needs. This literature examines how differentiating instruction to support social and emotional learning needs is critical to a student's overall success. This kind of instruction speaks to the idea of educating the whole child. The Association for Supervision and Curriculum Development (ASCD) defines a whole-child approach to education as policies, practices, and relationships that create opportunities for every child, regardless of need, background, or school and community. Differentiated opportunities support a healthy

environment where students are valued and supported and where there are high expectations for all (ASCD, 2007).

As we consider and value the whole-child approach and look to educate our students to ensure academic success and success in life, we must consider the impact of systematically supporting a child's social and emotional needs. Many students with diagnosed mental health issues often go unnoticed and undetected when noticeable changes occur. Trained professionals, such as psychologists, psychiatrists, and counselors, do not see students as often as the teachers do. This factor, compounded with teachers' lack of basic mental health training, leads our nation to a mental health crisis in our elementary schools (Anderson & Cardoza, 2016). Teachers should not be expected in any way to take on the role of a mental health professional, but with increased knowledge, they can become an integral part of a supportive mental health system. Educators have a unique opportunity to recognize and support students, especially those with a mental illness at the onset in the classroom environment.

2.3 Mental Health Concerns and Special Education

The involvement of all stakeholders (educators, families, policymakers, and community members) directly links to a child's long-term success (ASCD, 2007). Section 504 of the Rehabilitation act of 1973 prohibits discrimination of students with disabilities and lawfully provides individuals with disabilities accommodations and supports (Zirkel & Weathers, 2016). In the United States, mental health disorders are disabilities with this legislation protecting students with a mental illness diagnosis. Accommodations to ensure equity and equal access to education are at the core of this design.

A mental health literacy lens changes how we think about, understand, and believe in the potential and capabilities of our students. Suppose we are to look to close the academic discrepancies found and strive to close achievement gaps. Educators should consider what research shows us about supporting the whole child in supporting student's attainment of academic success. Social and emotional learning has a vital role in influencing a child's academic success and development as a lifelong learner (Zins et al., 2007).

Students with anxiety and depression often have a hidden disability. Traditional methods to modify these unexpected and unaccepted responses, often found in behavior plans (such as stickers and point systems), are ineffective in addressing underdeveloped or lagging skills (Greene, 2018). Educators must learn more about how students act and react to prompts and stimuli within the conventional classroom setting, specifically those diagnosed with mental health concerns. They must then strengthen foundational and pedagogical knowledge surrounding mental health literacy to address and support students' needs.

2.4 Mental Health and Social Emotional Learning

Positive long-term outcomes for students, specifically for those diagnosed with mental health issues, are supported by strengthening the knowledge of all stakeholders. Districts need to consider strategies to support mental health literacy as a systematic and process approach (Anderson-Butcher et al., 2008). By exploring the importance of mental health and wellness in schools and frameworks to address social and emotional learning (SEL), school districts can improve the mental health supports accessible to all students. Developing mental health literacy is essential as we explore equitable educational practices to meet all students' needs.

One indicator of the rising need for explicit and universal instruction in social and emotional learning, specific to mental health needs, is the increased identification of childhood anxiety as a trigger for behavior issues in young children (Minahan & Rappaport, 2012). Underdeveloped social skills can often contribute to an increase in anxiety. This anxiety leads to inappropriate behaviors in the classroom, and research has shown that students with high anxiety have a greater risk of falling behind academically. When students can't behave, it is often found that they have not developed the essential skills to do so (Minahan & Rappaport, 2012).

Social and emotional learning skills explicitly taught could be in the areas of self-regulation, social skills, executive functioning, and flexible thinking. Green (2008) shares that if kids could do better, they would. We need to support students who may have lagging SEL skills. Social and emotional competencies, explicitly taught in the classroom setting, can improve the classroom environment for all children (Portnow et al., 2018).

Explicit SEL instruction is necessary to assist the student in identifying antecedents (what happened right before the incident) and learn from them (Gresham, 2016). SEL instruction supports the student in developing skills with self-regulation by utilizing emotional identification strategies. SEL is not about punishment and rewards but is about teaching appropriate behaviors and about educating teachers on how to respond to students with uncontrolled behavior responses insomuch as, "If a student can't behave, it's often because he or she hasn't developed the necessary skills" (Minahan & Rappaport, 2012, p. 36).

Educators believe SEL can prepare students for success in school, college, and beyond. Teachers should take a lead role in educating and promoting all students' positive social, emotional, and academic growth (Taylor et al., 2017). School districts should aim to use professional

development opportunities to enrich best practices that produce quality outcomes to meet the needs of all students (Basch, 2013).

2.5 Mental Health Literacy

Anxiety and depression are internalizing disorders (Wilkinson, 2009). Often misunderstood mental health disorders, anxiety and depression often co-occur. We must deepen our understanding of mental health and mental illness to support students who may suffer in silence. Mental Health Literacy encompasses knowledge and beliefs about mental health disorders. Included are ways to obtain and maintain positive mental health, understand mental health disorders and treatments, address mental health stigmas, and provide tools to develop help-seeking efficacy or the ability to know about mental health assistance (Kutcher et al., 2016).

An educator's understanding (or literacy) regarding how and why mental health issues, such as anxiety and depression, manifest in school-aged children and the misconceptions and misunderstandings associated with this lack of literacy; may indicate much-needed professional development (Nelson, 2019). As connected to a broader category of social and emotional learning, the development of mental health knowledge is foundational as we strive to create educational programs that meet our students' basic needs. A widely circulated phrase among educators today is 'You must *Maslow* before you can *Bloom*.' Educators need to address mental health and social-emotional learning before exploring and developing academic knowledge and skills.

The development of social and emotional skills in childhood connects to life outcomes, including job and financial security and overall mental health. This compelling evidence suggests that there's a strong case for making such non-academic skills and competencies a central feature

of schooling, both because of their intrinsic value to society and, from a pragmatic standpoint, because they may help to reduce achievement and behavior gaps and mitigate exposure to stress. (Jones et al., 2017, p. 50). Similarly, to previously cited research, this shows that children who master these specific SEL skills tend to get along better with their peers, have greater academic achievement in school, and subsequently have better mental and physical health as adults with more successful careers (Bailey et al., 2017).

Educators play a vital role in creating and fostering an environment that supports students' social and emotional well-being. Supportive environments can happen through a tiered approach, such as supported through PBIS (Positive Behavior Intervention Systems) or in a tier-one universal capacity. As the primary contact for students throughout the day, teachers have an opportunity to note and notice students who may be having difficulties and possibly struggling with internalizing mental health issues. Once educated, teachers can have the capacity to engage in classroom practices that support social and emotional learning and can be a crucial impetus for supporting our children's emotional health and well-being (Korinek, 2021).

Educators have a desire to learn and grow to meet the diverse needs of challenging student populations. Although research findings show that educators lack the foundational knowledge to address mental health issues, educators have the desire to receive professional development which will develop their capacity to understand, recognize and support students' mental health issues within the classroom (Shah & Kumar, 2012; Vieira et al., 2014). Foundational knowledge associated with mental health literacy is critical if we aim to create opportunities to address students' mental health concerns within the classroom setting and center our thinking around a whole-child approach.

3.0 Theory of Improvement and Implementation

3.1 Research Aims

If we train staff by increasing overall mental health literacy within the 2020-2021 school year, specifically in the areas of anxiety and depression, by utilizing the intervention guide *Helping Students Overcome Depression and Anxiety* by Kenneth W. Merrell (2008), then staff will be more equipped to identify, address, and support students with mental health concerns in the classroom setting.

The researcher conducted several empathy interviews and staff surveys. Aligned with the results of several research studies, the staff recognized the growing number of mental health concerns at the elementary level but had little knowledge and resources to address these concerns. Strengthening the mental health literacy of the elementary staff could directly impact the overall well-being of students. "Research tells us again and again that when students do not achieve, their underachievement is a function of the opportunities that they either have - or have not had" (Milner, 2011). The researcher would argue that many of these missed opportunities result from unaddressed mental health concerns and a staff's foundational misunderstanding of internalizing disorders in children.

Effective professional development for educators incorporates the following methodology: is content-focused, incorporates active learning, supports collaboration, uses models of effective practice, provides expert support, offers reflection, and is of sustained duration (Darling-Hammond et al., 2017). Because of this multi-dimensional approach, the researcher adopted an intervention that is much the same. The researcher presented chapters from *Helping*

Students Overcome Depression and Anxiety (Merrell, 2008) in a virtual book study format. Collaborative discussions and optional reflective journaling followed the book study. Over five weeks, the staff engaged in a professional development series focusing on addressing and supporting anxiety and depression as recognized internalizing disorders. Through this learning opportunity, they developed a foundational understanding to strengthen their knowledge of the components of mental health literacy.

Figure 1 is a visual description of the items that stem from a lack of mental health literacy among our educators. It examines opportunities for growth and development and suggests strategies to address these aims.

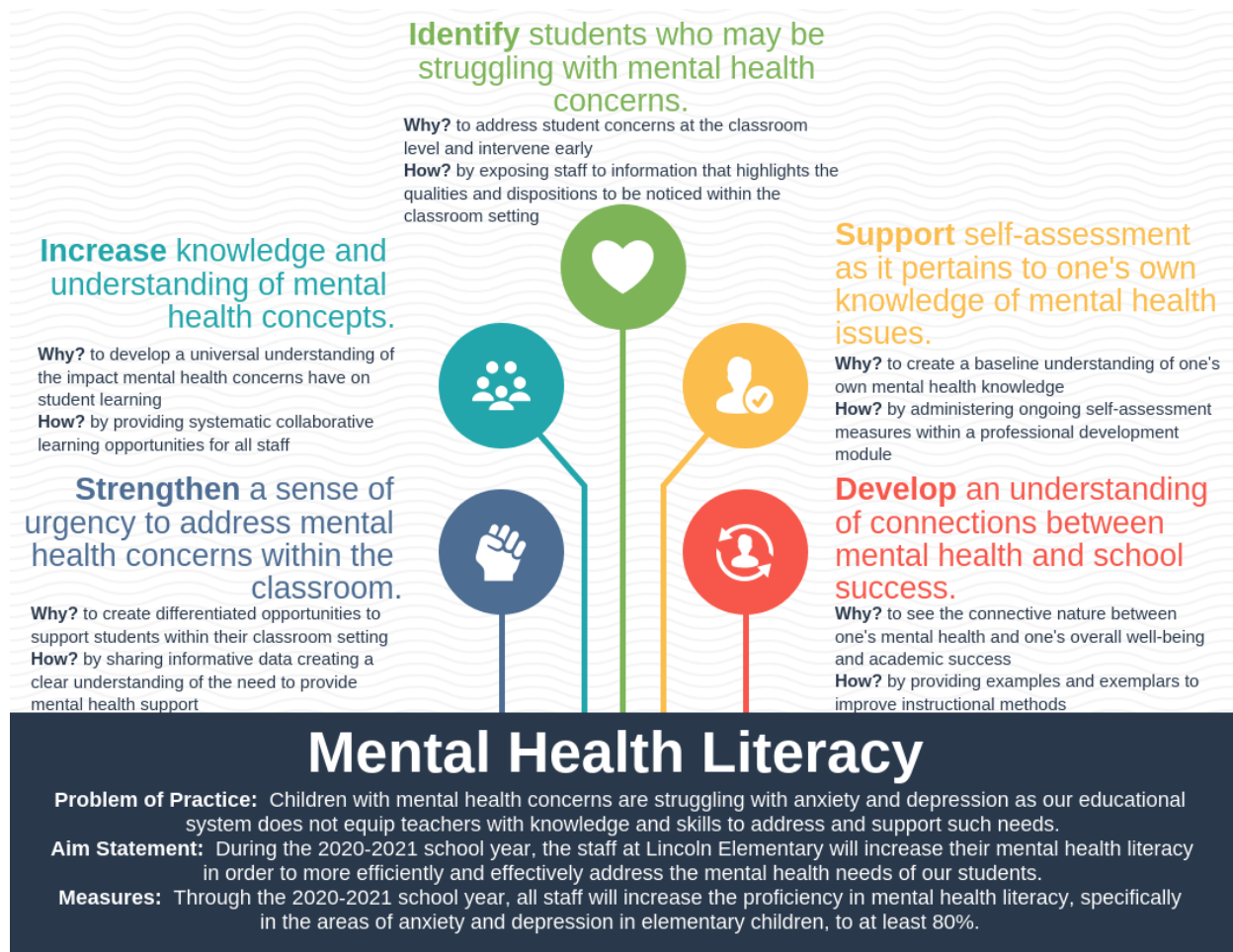


Figure 1. Mental Health Literacy Aims

3.2 Aim Statement

Educators may lack the knowledge and skills within mental health literacy to address internalizing mental disorders in children and adolescents (Andrews et al., 2014). This study addressed the following aim: *During the 2020-2021 school year, the elementary staff will increase their mental health literacy to address the mental health needs of the students more efficiently and effectively.* This aim was measured qualitatively and quantitatively using a virtual book study.

The book study, combined with reflective journaling, provided self-assessment opportunities. This approach analyzed applied knowledge to see if it increased the staff's understanding of mental health literacy (obtaining and maintaining positive mental health, reducing stigma, understanding disorders, treatments, and seeking help) and if the staff's perception of this learning increased.

The purpose of this inquiry was to recognize a baseline level of teachers' knowledge of mental health literacy about internalizing mental health disorders, specifically depression and anxiety in elementary children. This study explored the impact of a directed and reflective virtual book study to provide educators with the knowledge and understanding of components of mental health literacy.

This study attempted to strengthen educators' understanding of how these mental health disorders manifest within the public schools (specifically the classroom setting) and provide tools for the educator to address and seek support for students with mental health needs. Strengthening mental health literacy is the foundation for prevention, health promotion, treatments, and care for students with mental health concerns.

3.2.1 Additional research aims

- Establish an initial understanding of the staff's baseline knowledge of mental health literacy specific to their knowledge of anxiety and depression in school-aged children.
- Create opportunities for staff to learn within a virtual professional development experience and reflect upon this experience to provide the knowledge needed to change pedagogical practices.

3.3 Driver Diagram

Figure 2 is the driver diagram that overviews the primary drivers to this problem. Many factors influence an educator's capacity to develop foundational knowledge and a deep understanding of the components capable of strengthening mental health literacy.

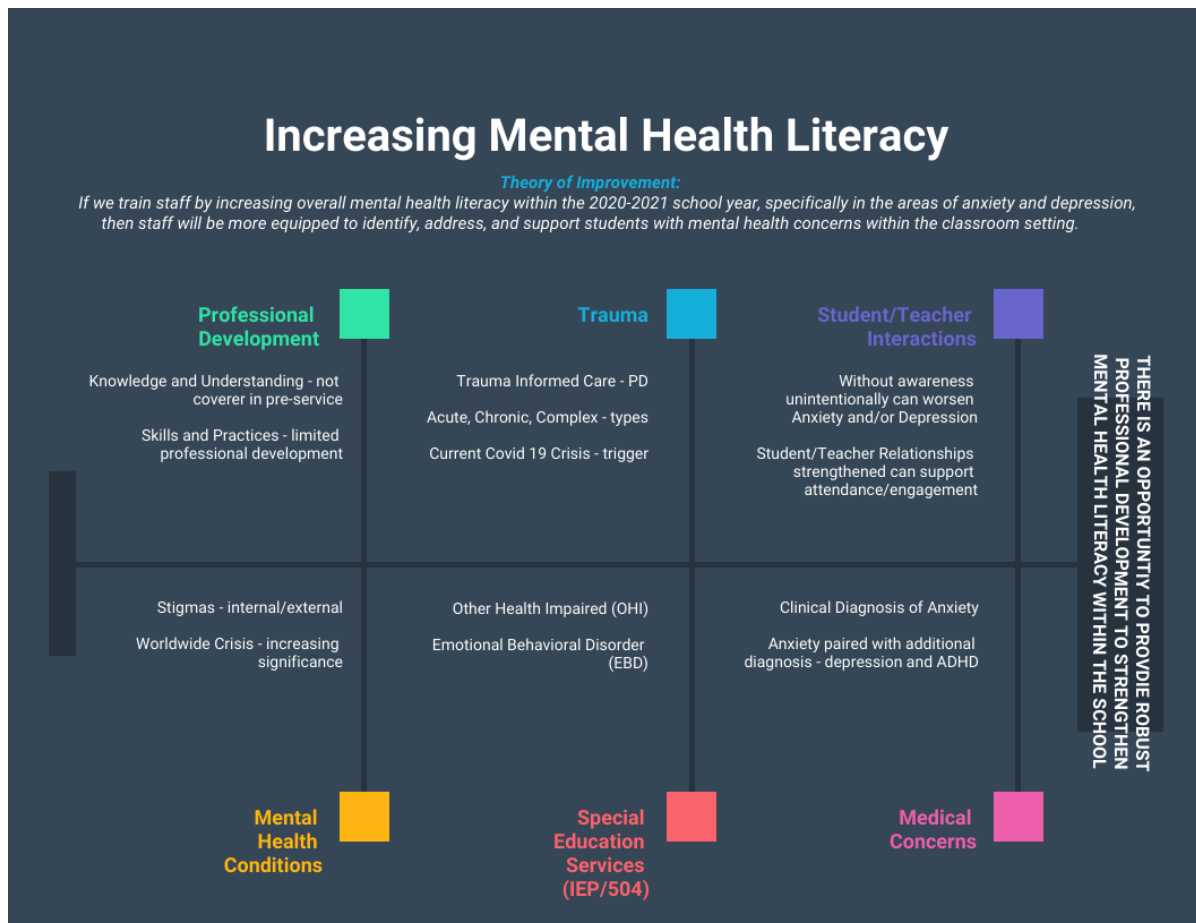


Figure 2. MHL Driver Diagram

Several drivers directly impact the development of this foundational knowledge. The first is a sense of urgency to address mental health concerns within the classroom setting. To create

differentiated and responsive learning opportunities for students within the classroom setting, we first inform the staff by providing informative data that clearly understands the need to provide mental health support.

The second is the knowledge and understanding of mental health concepts. To develop a universal understanding of the impact mental health concerns have on student learning, we provide systematic collaborative learning opportunities for all staff.

Next is the identification of students who may be struggling with mental health concerns within the classroom. To address these concerns at the classroom level and intervene early, we expose staff to information highlighting the qualities and dispositions noticed within the school setting.

Then, we explore ways to support staff self-assessment regarding one's knowledge of mental health issues and identifications. To create a baseline understanding of one's mental health knowledge and create learning paths, we utilize ongoing self-assessment measures to track progress and engage in reflective learning opportunities within a professional development module.

3.4 Research Questions

1. To what extent do the staff members have knowledge of anxiety and depression in children prior to the book study? *quantitative*
2. After the book study, to what extent do the staff increase their knowledge of anxiety and depression in children? *quantitative*

3. To what extent do the staff members perceive they understand anxiety and depression in children prior to the book study? *quantitative*
4. To what extent do the staff members' perception of knowledge of anxiety and depression in children change following the book study? *quantitative*
5. What do staff members report as takeaways from the learning sessions? *qualitative*

3.5 Methods

Professional development and teacher change must be systematic with a model that supports a temporal sequence of events to create experiences that will impact and educators' attitudes and perceptions and, in turn, create enduring change (Guskey, 2002). To do so, one must utilize a multi-dimensional methodological approach. This study presented opportunities to develop foundational understanding, content knowledge, and reflection.

As an overview, during five consecutive weeks in the 2020-2021 school year, elementary educators had an opportunity to participate in this research study voluntarily. The school leadership team is committed to professional development modules. The staff focused on this as an area of growth for the 2020-2021 school year.

Each participant had a copy of *Helping Students Overcome Depression and Anxiety: A Practical Guide* (Merrell, 2008). All training took place weekly within the pre-scheduled professional development/staff meeting times. These staff meetings, and an opportunity for professional learning, occurred via the Zoom web-based format.

3.6 Outline for Book Study – All Sessions Over Zoom

Session 1: What is mental health literacy, and why does it matter?

- Reread introductory letter and expectations for study
- Review Norms
- Share some foundational knowledge of the why? - district, local, and national data - key points from lit review
- Staff who wish to participate in the study take the initial knowledge assessment (Pre-Learning Survey); other staff members may be dismissed
- Read Chapter 1 for the next session

Session 2: Understanding Internalizing Problems: Depression and Anxiety in Children and Adolescents

- Chapter 1 overview and discussion - pgs. 1-12
- Breakout sessions were discussing Four Vignettes with share-outs - pgs. 13-17
- Online reflection - What takeaways do you have from this learning session?
- Read Chapter 2 for the next session

Session 3: How Internalizing Problems Develop and Are Maintained

- Chapter 2 overview and discussion - pg. 19
- Create a visual sharing the Development of Internalizing Problems - share screens in breakout rooms - pgs. 20-24
- Dig into the Consequences of Internalizing Problems - pgs. 26-31
- Online Reflection - What takeaways do you have from this learning session?
- Read Chapter 4 for the next session

Session 4: Social and Emotional Learning: An Important Tool for Promoting Mental Health

- Overview and discussion of Chapter 4 - pg. 69 and 70
- Solidify the importance of SEL and SEL curriculums
- Explore Strong Kids curriculum; paired explorations of lessons - pgs. 74-80
- Focus on Practical Suggestions for Using SEL Programs in Schools, discussing what we can do better - pg. 80-85
- Online Reflection - What takeaways do you have from this learning session?

Session 5: Reteaching and Deepening Understanding: Final Reflections/Next Steps

- Breakout rooms with the 3, 2, 1 strategy (three things you learned and discovered, two ways your thinking has changed, one question you still have)
- Post-Learning Survey and Reflective Journal opportunity

3.7 Measures

This study was of mixed methods as it used both qualitative and quantitative measures. These measures were the tools to monitor and analyze the effectiveness of the virtual book study professional development intervention. As self-reflective practitioners, the staff monitored their progress toward the various learning goals and their perceived ability to effectively address and support mental health concerns, specifically depression and anxiety, within the classroom setting.

The professional development opportunity included a learning survey administered before the first book study session and after the last. The researcher utilized survey questions adapted from the Anxiety Literacy Questionnaire, Depression Literacy Questionnaire, and the Mental

Health Literacy Scale (O'Connor & Casey, 2015), and a previous survey on teachers' mental health literacy by Nelson (2019).

The assessments consisted of questioning to develop baseline knowledge and to monitor knowledge-based growth. The assessment also allowed participants to score their understanding of internalizing disorders. Non-scored reflective journaling experiences occurred after each session. The researcher read these optional journal entries throughout the study, and reteaching/content reinforcement occurred in response to these reflections.

At the end of the five weeks, there was an opportunity for a post-survey with a scored journal reflection. This final journal reflection was coded and analyzed for depth of content knowledge foundational understanding.

The researcher analyzed pre-and post-survey data. Responses for questions one and two (open-ended) were hand-scored for accuracy about symptoms of anxiety and depression in students. A single group pretest-posttest design was used to analyze survey information related to knowledge and understanding regarding internalizing disorders and their specific contributing factors. The researcher gave surveys before the intervention and then matched them with corresponding surveys administered after the intervention. The researcher matched these responses through pseudonyms chosen by the participants. Specifically, there were 27 and 24 responses on the pre-survey and post-survey, respectively. There were 23 matched pairs of surveys among these responses. Of the 27 respondents to begin the study, 12 were classroom teachers (grade preschool through fifth grade), eight were content specialists/instructional coaches, and seven were members of the support staff team.

For this subset of responses, the researcher compared the number of correctly identified symptoms of anxiety and depressive disorders, as well as rating scale scores of self-perceived

understandings related to internalizing disorders and contributing factors. The researcher carried out Wilcoxon Signed-Rank tests for each set of paired outcomes to assess any significant difference between pre-survey and post-survey knowledge and understanding.

In addition to hypothesis testing, the researcher presented descriptive statistics in the form of a percentage of rating scale values endorsed by respondents for understanding items and the percentage of specific score values achieved for the two knowledge items. The researcher organized the results by the time of the survey. Plots in the form of bar charts and diverging bar plots were constructed.

A secondary opportunity for data analysis was at the end of study reflection. This open-ended response was analyzed using content analysis (Hsieh & Shannon, 2005). Journals were transcribed, and the researcher identified and compared preliminary codes and sub-codes with the current concepts presented in *Helping Students Overcome Depression and Anxiety* (Merrell, 2008) and analyzed utilizing a directed content analysis approach based on prior research done by Nelson (2019).

The researcher identified categories and themes in collaboration with the assistance of a colleague with significant mental health training. The researcher used matrices to chart the coded comments as themes were developed (Miles & Huberman, 1994).

4.0 Findings

What follows is the analysis of the pre-and post-survey as administered at the onset and conclusion of the virtual book study. The quantitative analysis focuses on the self-reported knowledge gained by participating in the book study. The qualitative analysis is a reflective component where themes were analyzed and developed with the collaboration of another colleague with significant mental health training. Codes and subcodes reflected themes as presented in *Helping Students Overcome Depression and Anxiety* (Merrell, 2008) in conjunction with analyzing the code description key as shared in Nelson's study on educator literacy (2019).

This section will organize and analyze the findings of this study by research questions. The quantitative analysis addressed the first four questions aligned to information gathered in the pre- and post-surveys. The qualitative analysis addressed the final question.

1. To what extent do the staff members perceive they understand anxiety and depression in children prior to the book study? *quantitative*
2. To what extent do the staff members' perception of knowledge of anxiety and depression in children change following the book study? *quantitative*
3. To what extent do the staff members have knowledge of anxiety and depression in children prior to the book study? *quantitative*
4. After the book study, to what extent do the staff increase their knowledge of anxiety and depression in children? *quantitative*
5. What do staff members report as takeaways from the learning sessions? *qualitative*

4.1 Items Related to Self-Reported Understanding (Questions 1 and 2)

The researcher compared results from pre-survey and post-survey items to assess the extent of change in perceived understanding. Specifically, the items corresponding to a self-perceived understanding of internalizing disorders amongst children and adolescents and relevant contributing factors to those disorders.

Through self-chosen pseudonyms, records from pre-survey and post-survey were paired wherever possible. These pairs resulted in a matched set of 23 respondents. The researcher based much of the analysis on this matched set. However, descriptive statistics from all participants will be included in addition to the matched pair results. Table 1 displays the distribution of responses for all respondents on self-reported understanding items.

Table 1. Distribution of Responses for All Respondents on Self-Reported Understanding Items

Question	Pre-Survey Rating (N = 27)						Post-Survey Rating (N = 24)					
	0	1	2	3	4	5	0	1	2	3	4	5
Understanding of internalizing disorders in children and adolescents	8%	48%	12%	24%	8%	0%	0%	0%	8%	29%	54%	8%
Understanding of each of the following categories of contributing factors to internalizing disorders:												
Biological influences	0%	46%	29%	8%	13%	4%	0%	0%	4%	42%	33%	21%
Family influences	8%	31%	27%	19%	12%	4%	0%	0%	4%	29%	42%	25%
Psychological stress and life events	4%	24%	32%	20%	16%	4%	0%	0%	4%	38%	33%	25%
Cognitive influences	5%	33%	43%	5%	10%	5%	0%	0%	17%	46%	29%	8%
Behavioral influences	4%	46%	29%	8%	13%	0%	0%	0%	13%	33%	46%	8%

The pre-survey responses show low perceived understanding among all items, but especially regarding the contributing factors of biological and behavioral influences. Post-survey

results show substantially higher perceived understanding in all areas, with the highest reported understanding in internalizing disorders, and the factors of biological influences, family influences, and psychological stress and life events. Table 2 displays the distribution of responses for matched pairs on self-reported understanding items.

Table 2. Distribution of Responses for Matched Pairs on Self-Reported Understanding Items

Question	Pre-Survey Rating (N = 27)						Post-Survey Rating (N = 24)					
	0	1	2	3	4	5	0	1	2	3	4	5
Understanding of internalizing disorders in children and adolescents	8%	48%	12%	24%	8%	0%	0%	0%	8%	29%	54%	8%
Understanding of each of the following categories of contributing factors to internalizing disorders:												
Biological influences	0%	46%	29%	8%	13%	4%	0%	0%	4%	42%	33%	21%
Family influences	8%	31%	27%	19%	12%	4%	0%	0%	4%	29%	42%	25%
Psychological stress and life events	4%	24%	32%	20%	16%	4%	0%	0%	4%	38%	33%	25%
Cognitive influences	5%	33%	43%	5%	10%	5%	0%	0%	17%	46%	29%	8%
Behavioral influences	4%	46%	29%	8%	13%	0%	0%	0%	13%	33%	46%	8%

The findings for the matched pairs dataset were consistent with the conclusions reported in Table 1. This data show that failure to match a handful of records (one post-surveys and four pre-surveys) does not meaningfully change the results.

Additionally, there were sporadic instances of missing responses to specific questions on the pre-survey. Table 3 displays the frequencies of missing data by specific item.

Table 3. Frequency of Missing Responses Across Items (Pre-survey)

Question	Frequency
Understanding of internalizing disorders in children and adolescents	2 (9%)
Understanding of each of the following categories of contributing factors to internalizing disorders:	
Biological influences	3 (13%)
Family influences	1 (4%)
Psychological stress and life events	2 (9%)
Cognitive influences	6 (26%)
Behavioral influences	3 (13%)

The researcher produced plots to accompany the descriptive statistics. Both were based on the matched pairs of responses. The first (Figure 3) is a grouped bar chart of the frequencies of ratings for each question at pre-survey and post-survey. The researcher based this analysis on the 23 matched pair results.

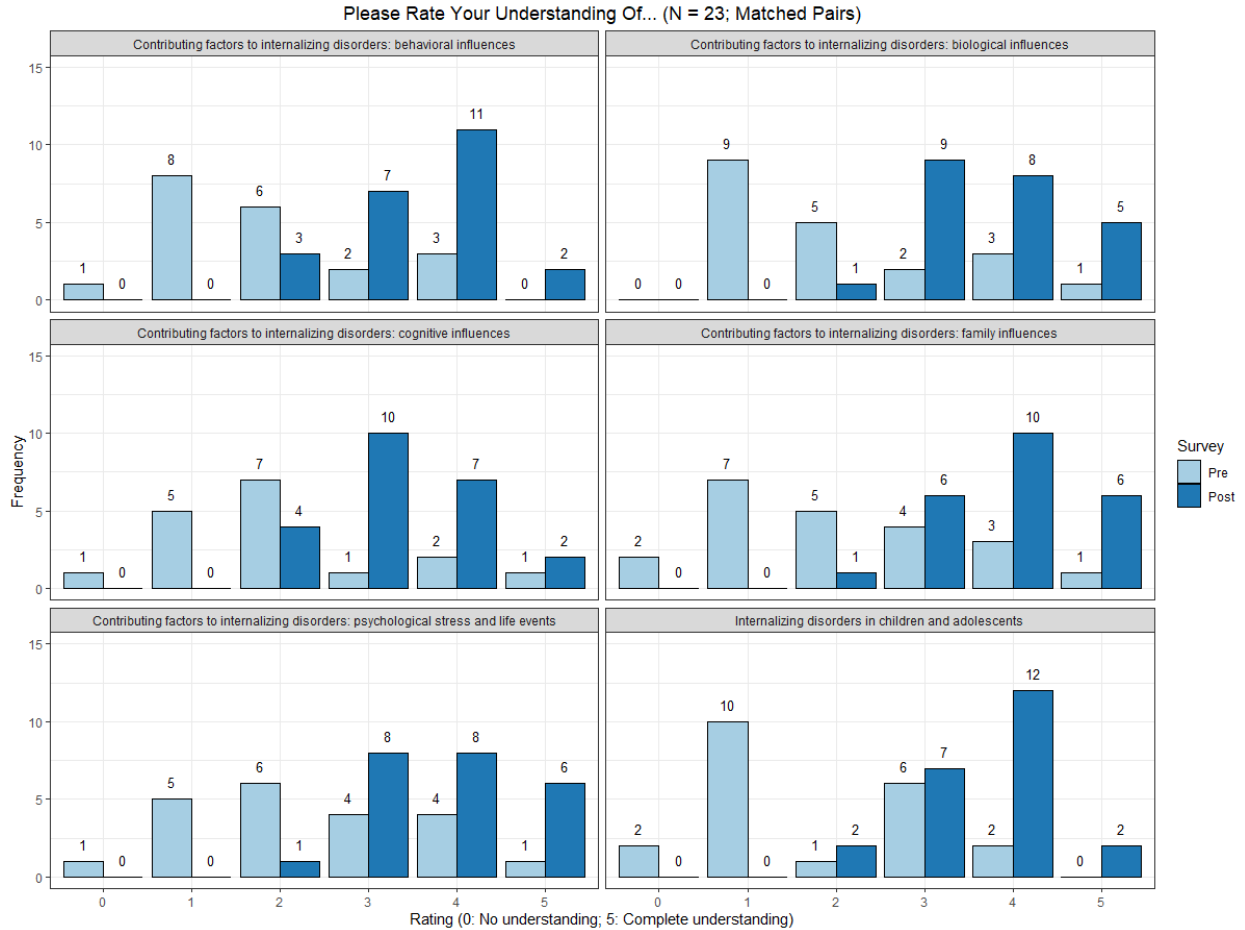


Figure 3. Bar Plots of Responses for Matched Pre-Survey and Post-Survey Self-Reported Understanding

Items

Consistent with the prior descriptive statistics, ratings shift in an upward direction from pre-survey to post-survey. A second plot (Figure 4) was produced in the form of a diverging bar plot. This bar plot has a few additional elements.

Specifically:

- The number of responses is reported along the right-hand side
- Two colors with gradient shade are chosen to represent the two ends of the scale
 - 0-2 are represented by red

- 3-5 are represented by blue
- The deepness of the color reflects the extremeness of the response.
- A vertical axis is introduced to cut off lower understanding ratings (0-2) from higher understanding ratings (3-5)
 - Ratings of 0-2 (red) stack towards the left of the axis
 - Ratings of 3-5 (blue) stack towards the right of the axis

Pre-survey and post-survey diverging bars are grouped into two sections

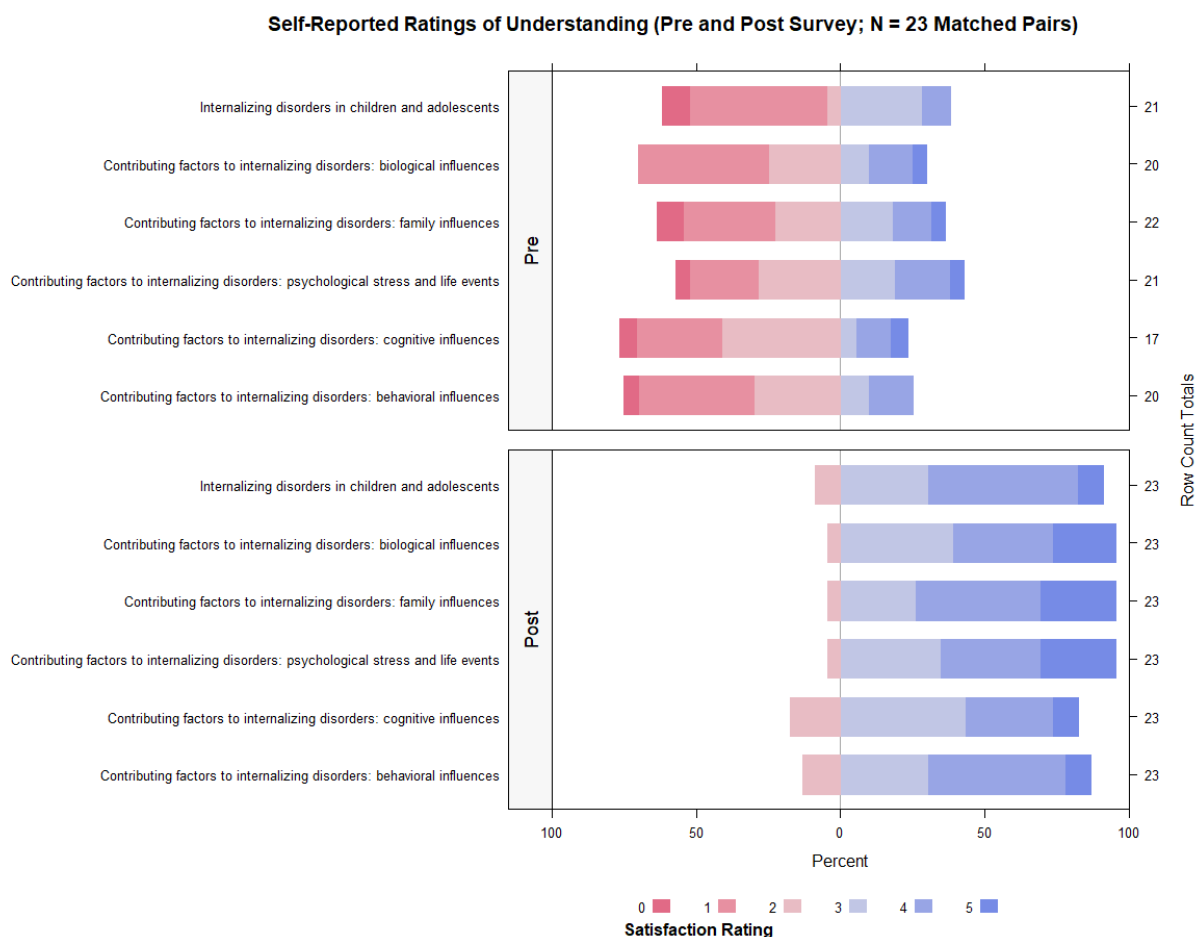


Figure 4. Diverging Bar Plots of Responses for Matched Pre-Survey and Post-Survey Self-Reported Understanding Items

Key findings:

- At pre-survey:
 - There were large percentages of respondents reporting lower understanding (0-2) for all items.
- At post-survey:
 - There were minimal percentages of respondents reporting lower understanding for all items.
 - Large proportions of respondents chose 4 or 5 to reflect their level of understanding.

Next, the researcher carried out hypothesis testing in the form of Wilcoxon Signed Rank Tests. The researcher chose this test due to the data's ordinal nature and that their observed distributions did not appropriately approximate a normal distribution. The Wilcoxon test will assess potential differences between pre-survey and post-survey matched pairs results for all understanding items for each test. The results are shown in Table 4.

Table 4. Wilcoxon Signed-Rank Test Results for Comparison of Matched Pre-survey and Post-Survey Self-Reported Understanding Items

Question	Z	p
Understanding of internalizing disorders in children and adolescents	-3.873	< .001
Understanding of each of the following categories of contributing factors to internalizing disorders:		
Biological influences	-3.495	< .001
Family influences	-3.706	< .001
Psychological stress and life events	-3.461	< .001
Cognitive influences	-2.769	0.006
Behavioral influences	-3.616	< .001

There was a significant difference in perceived understanding between pre-survey and post-survey in each case. Specifically, the researcher observed increases in understanding.

4.2 Items Related to Knowledge about Depressive/Anxiety Symptoms (Questions 3 and 4)

The researcher asked respondents to list five symptoms of depressive disorders and anxiety disorders, each at both pre-survey and post-survey. The researcher gave a score for each question for each participant. A maximum of 5 points could be given if all five symptoms provided were correct. Otherwise, the score is the number of correct symptoms provided as aligned with content knowledge as presented in *Helping Students Overcome Depression and Anxiety* (Merrell, 2008). A decision was made to reduce a score by one if a respondent provided more than five symptoms and the additional symptom(s) provided were incorrect. There was only one such deduction for a

single point, as nearly all respondents properly provided five symptoms. Table 5 displays the distribution of scores for all respondents on knowledge items.

Table 5. Distribution of Scores for All Respondents on Knowledge Items

Measure	Pre-Survey Score						Post-Survey Score					
	0	1	2	3	4	5	0	1	2	3	4	5
Number of Correctly Reported Depressive Disorder Symptoms	0%	4%	22%	33%	30%	11%	0%	0%	0%	0%	4%	96%
Number of Correctly Reported Anxiety Disorder Symptoms	41%	33%	11%	11%	4%	0%	0%	0%	0%	0%	8%	92%

Key findings:

- At pre-survey, performance on each item varied widely.
 - For depressive disorders, a score of 3 or 4 was most common (63%), and an overwhelming majority of respondents (74%) could name at least three correct symptoms. Everyone was able to name at least one symptom correctly.
 - For anxiety disorders, performance was far worse when compared against results from the depressive disorders item. Most of the respondents (85%) were not able to name three or more correct symptoms. No one was able to name five correct symptoms. This implies more of a knowledge gap for anxiety-related disorders (at least out of the two disorder types included in this survey).
- At post-survey, performance was almost a consensus of perfect scores on both items.

- Only one person was unable to name five correct depressive symptoms (and they scored a 4).
- Only two people could not name five correct anxiety symptoms (and they each scored a 4).
- Distributions of scores are quite skewed, and as a result, non-parametric testing will be undertaken when conducting hypothesis testing.
- Average scores (and standard deviations):
 - Pre-survey
 - Depressive $\bar{M} = 3.2$, $SD = 1.1$
 - Anxiety $\bar{M} = 1.0$, $SD = 1.2$
 - Post-survey
 - Depressive $\bar{M} = 5.0$ (approximately), $SD = 0.2$
 - Anxiety $\bar{M} = 4.9$, $SD = 0.3$

When considering only matched pairs, the results are similar (and summarized identically to what was presented in Table 5). Table 6 displays the distribution of scores for matched pairs on knowledge items.

Table 6. Distribution of Scores for Matched Pairs on Knowledge Items

Measure	Pre-Survey Score						Post-Survey Score					
	0	1	2	3	4	5	0	1	2	3	4	5
Number of Correctly Reported Depressive Disorder Symptoms	0%	4%	17%	35%	30%	13%	0%	0%	0%	0%	4%	96%
Number of Correctly Reported Anxiety Disorder Symptoms	39%	30%	13%	13%	4%	0%	0%	0%	0%	0%	9%	91%

Key findings:

- At pre-survey, performance on each item varied widely.
 - For depressive disorders, a score of 3 or 4 was most common (65%), and an overwhelming majority of respondents (78%) could name at least three correct symptoms. Everyone was able to name at least one symptom correctly.
 - For anxiety disorders, performance was far worse when compared against results from the depressive disorders item. Most of the respondents (83%) were not able to name three or more correct symptoms. No one was able to name five correct symptoms. This implies more of a knowledge gap for anxiety-related disorders (at least out of the two disorder types included in this survey).
- At post-survey, performance was almost a consensus of perfect scores on both items.
 - Only one person was unable to name five correct depressive symptoms (and they scored a 4).
 - Only two people could not name five correct anxiety symptoms (and they each scored a 4).
- Distributions of scores are quite skewed, and as a result, non-parametric testing will be undertaken when conducting hypothesis testing.

- Average scores (and standard deviations):
 - Pre-survey
 - Depressive $\bar{M} = 3.3$, $SD = 1.1$
 - Anxiety $\bar{M} = 1.1$, $SD = 1.2$
 - Post-survey
 - Depressive $\bar{M} = 5.0$ (approximately), $SD = 0.2$
 - Anxiety $\bar{M} = 4.9$, $SD = 0.3$

Next, hypothesis testing was carried out in the form of Wilcoxon Signed Rank Tests. The researcher chose this test due to the data's ordinal nature and that their observed distributions did not appropriately approximate a normal distribution. The Wilcoxon test will assess potential differences between pre-survey and post-survey matched pairs results for all knowledge scores for each test. The results are shown in Table 7.

Table 7. Wilcoxon Signed-Rank Test Results for Comparison of Matched Pre-Survey and Post-Survey

Knowledge Items		
Measure	Z	p
Number of Correctly Reported Depressive Disorder Symptoms	-3.911	< .001
Number of Correctly Reported Anxiety Disorder Symptoms	-4.235	< .001

There was a significant difference in the number of correctly reported symptoms between pre-survey and post-survey in each case. Specifically, the researcher observed increases in the scores for both depressive and anxiety symptoms.

4.3 Open-Ended Reflection (Question 5)

The researcher processed most of this analysis through the quantitative section related to four of the five research questions. However, there is a smaller qualitative section based on an end of study open-ended reflective question. In addition to the quantifiable questions asked in the pre- and post-survey, the researcher allowed respondents to respond to an open-ended response question in the post-survey: *I'd like to know what you feel your biggest learning takeaways are and your plan to utilize what you've learned to support students with anxiety and depression within the classroom.* The researcher used this analysis to capture expressive information not able to be conveyed in the quantitative data. Seventeen of the 24 respondents took part in this reflective opportunity with a response rate of 71%. Responses were extracted from Qualtrics and analyzed as follows:

1. **Data were reviewed and explored:** The researcher read the journal comments to get a sense of what they contained. The researcher wrote notes, highlighted and looked for keywords to highlight thoughts, ideas, and questions emerging. The researcher also reviewed data with a knowledgeable colleague with extensive elementary school psychology experience. They went through a similar process. Then we compared and discussed initial thoughts. Additionally, the researcher reviewed responses for accuracy regarding symptoms of depression and anxiety in elementary students.
2. **Initial codes were created:** The researcher utilized a qualitative content analysis and derived codes from the data collected. They used highlighters, notes in the margins, sticky pads, and concept maps to connect with the data. They highlighted keywords and phrases as well as made notes in the margins to categorize the data.

3. **Codes were reviewed, and themes noted:** The researcher noted reoccurring themes, language, opinions, and beliefs.
4. **Themes were then cross-referenced and presented:** To tell the story of the data, The researcher first split responses into two categories aligned with the open-ended question posed in the post-survey; *biggest takeaways and next steps*. The researcher reviewed these themed responses and finally coded, tallied, and compared. Tables 8 and 9 summarize the data.

Table 8. Biggest Takeaways from Content Analysis

Student-Centered Response	Deeper Understanding of Internalizing Disorders	Beginning to utilize a mental health lens – mental health literacy improved	Universal Instruction/SEL supports
Support students with anxiety and depression	A child may look inattentive or over-emotional but it may be due to anxiety or depression	(I want to) help students be successful in managing their emotions	As a whole school within the classroom
Many of my students have symptoms of depression and anxiety	I know more about symptoms	I can better support my students because I know more	Support them here (in class) first
I can support (each student) better	I was really interested in the somatic problems	I can make decision based on a better understanding of where students might be coming	Every student can benefit in some capacity from SEL
Our kids have these issues	(I see) the overlap between the symptoms of anxiety and depression	I've learned how to observe my students more carefully for signs of anxiety and depression	A variety of tools to help students gives me hope
Depression and anxiety are real for our students	Internalizing disorders are affected by so many different factors in a child's life	Knowing that we have a staff that has a shared understanding...gives me hope	
Importance of teaching the whole child	I know there are many influences that could be affecting children's diagnosis of depression or anxiety	I won't assume students are just being defiant with certain behaviors	
	(These problems) are difficult to pinpoint/diagnose		
	There are usually multiple causes and it is complex in nature		
6	8	6	3

Table 9. Next Steps from Content Analysis

Student-Centered Response	Deeper Understanding of Internalized Disorders	Beginning to utilize a mental health lens – mental health literacy improved	Universal Instruction/SEL supports
I can help all of my students	(I can) question what is behind a behavior	(I can) use what I know to help students	I want to understand more about strategies I can use to help
(look for) symptoms of anxiety and depression in my students	I plan to be alert for symptoms of anxiety and depression	Look forward to my putting more SEL in place for our building as a whole	We need to be consistent across grades/classrooms
I plan on using this information to make better decisions (for my students)	I can make better decisions when students are displaying certain behaviors	We should create a culture that is consistent	Learning strategies to help with social and emotional growth
I look forward to finding support (to help) students in my classroom		We need to get all staff trained and knowledgeable	I'd like to be part of implementing a new tier 1 program
			I'd like to consider ways to better implement SEL at school in a consistent manner
			I plan to teach my classes about sleep, feelings, having control over your life etc. during social studies
			I am looking forward to putting more consistent SEL in place for our building as a whole
4	3	4	7

4.4 Alignment of Quantitative and Qualitative Results

When quantitative and qualitative results align, it makes the data story more transparent and convincing. In this study, we can see meaningful results with both types of analysis. Quantitatively, all respondents gained informational knowledge and had a positive perception shift. Qualitatively, 71% showed gains within their written responses and showed positive changes aligning with values and perceptions. Such strong results align with research on the power of collective efficacy and the ability of teachers to move a school forward (Donohoo et al., 2018). Table 10 is a summary of these results.

Table 10. Mixed Methods Comparison of Results

	Foundational Knowledge Gain	Values/Perception Shift
Quantitative (23 respondents)	23/23 100%	23/23 100%
Qualitative (17 respondents)	12/17 71% average gain	12/17 71% average gain

5.0 Discussion

5.1 Introduction

This research focused on mental health literacy and the need for professional development in this area. The researcher adopted a virtual book study format to support professional learning. The study examined staff understanding of the symptoms of and knowledge of depression and anxiety as internalizing disorders in children. It stems from several sources, including but not limited to research by Nelson (2019).

5.2 Discussion of Research Questions

The desire to learn more about mental health issues and strengthen the schoolwide SEL system became evident during leadership team planning meetings for the 2020-2021 school year. This study confirmed that need. This section will examine the findings and what they mean for school and district leadership.

To what extent do the staff members have knowledge of anxiety and depression in children prior to the book study?

The lack of knowledge and perceived lack of understanding of mental health issues in students was significant, specifically surrounding the manifestation of and attributes of anxiety in children.

For depressive disorders, an overwhelming majority of respondents (74%) could name at least three correct symptoms. All participants were able to name at least one symptom correctly. For anxiety disorders, performance was far worse when compared against results from the depressive disorders item. Most of the respondents (85%) were not able to name three or more correct symptoms. None of the participants were able to name five correct symptoms. This finding signifies a more significant knowledge gap for anxiety-related disorders (at least out of the two disorder types included in this survey).

As part of district learning, lessons on suicide and depression occur systematically every year with all licensed staff. The staff is aware of the prevalence of depression and suicidal thoughts in our youth, specific to our district middle and high school students. Direct references to elementary students and their mental health are not part of this professional learning. Some staff had some foundational understanding of depression as an internalizing disorder but were not at a heightened level of knowledge until the conclusion of this book study.

As school leaders examine areas for professional development, they should consider areas in which the staff has lagging knowledge and skills. Meaningful professional learning experiences, in this case, a virtual book study, can address this knowledge gap.

To what extent do the staff members perceive they understand anxiety and depression in children prior to the book study?

The pre-survey responses showed low perceived understanding among all items, but especially regarding the contributing factors of biological and behavioral influences. There were large percentages of respondents reporting lower understanding (0-2 on the rating scale) for all items. This result aligned with concerns discussed with the building leadership team. Of

importance is that the staff appeared to be aware of their lack of knowledge. Being self-reflective of these areas creates relevancy and a sense of urgency to move forward.

After the book study, to what extent do the staff increase their knowledge of anxiety and depression in children?

Within the study, the greatest extent of knowledge gain occurred with developing a foundational understanding of the manifestation and characteristics of anxiety within elementary school children. At post-survey, performance was almost a consensus of perfect scores on both items (depression and anxiety symptoms). Only one person of 27 could not name five correct depressive symptoms (and they scored a 4). Only two people of 27 could not name five correct anxiety symptoms (and they each scored a 4). Distributions of scores appeared skewed because of these strong results. These results support the strong influence professional learning can have on a staff's foundational knowledge. These results also show that the most significant amount of learning can occur within the areas that staff lack knowledge or skills.

To what extent do the staff members' perceptions of knowledge of anxiety and depression in children change following the book study?

This study found a notable difference in perceived understanding between pre-survey and post-survey. In other words, participants recognized that they did not have foundational knowledge before the book study. Post-survey results show substantially higher perceived understanding in all areas, with the highest reported understanding in internalizing disorders, and the factors of biological influences, family influences, and psychological stress and life events. Large proportions of respondents chose 4-5 (on a 0-5 rating scale) to reflect their level of understanding. School leaders should look for opportunities to engage their staff as they move learning forward. Creating and maintain an engaged staff can be a powerful tool (Serrano &

Reichard, 2011). If staff perceive that professional development is meaningful and gain knowledge from it, they will be more likely to engage in the future. Further research could explore this connection.

What do staff members report as takeaways from the learning sessions?

A large majority of study participants showed positive shifts aligning with values/perception. Such strong results align with the power of collective efficacy and the ability of teachers to move a school forward (Donohoo et al., 2018). Collective efficacy speaks to the collective vision and mission and how, when there is alignment, a group can move forward with a commonality of thought. Through this study, a common understanding developed, and themes of next steps and continuous improvement emerged. Staff was eager to offer support with their newfound knowledge and continue their learning, evidenced by requests to continue the book study.

Developing collective efficacy in an organization takes a shared vision and commitment (Donohoo et al., 2018). When strong teams have shared beliefs through a shared vision, they can overcome challenges and produce meaningful results. Overcoming obstacles has been a common theme during the recent global pandemic. With increased concern over the mental well-being of students, this collective efficacy may help drive the relevancy of professional development opportunities. Further research exploring this correlation and measuring the effects of collective efficacy on professional development experiences, specific to developing mental health literacy, could be explored further.

School leaders should be aware that teacher collective efficacy has an effect size of 1.57 (Hattie & Zierer, 2019). According to visible learning research, teacher collective efficacy is the factor that has the most significant potential for impacting student achievement. This study has

shown that a virtual book study for professional development effectively develops collective efficacy. Leaders should further examine how book studies can strengthen staff knowledge and perception and lead to the development of collective efficacy.

5.3 Limitations of this Study

5.3.1 Format

This study was limited to a virtual format at the time of implementation as it coincided with the global COVID-19 pandemic. This limitation became a benefit. The virtual book study format allowed a variety of staff members, who often worked among several schools, the opportunity to engage in this professional learning through the use of an online platform. An ongoing limitation for professional development opportunities for educators tends to be the time involved. This study was able to break the barrier of locality and possibly increased learner participation.

5.3.2 Scope

The scope of learning in this study was limited. Five succinct learning sessions focused on limited learning objectives. This learning allowed staff to focus on foundational knowledge and pedagogical implications. Studies note the large gap in knowledge surrounding mental health issues as our pre-service teaching models do not address this learning (Kutcher et al., 2016). This study focused on foundational knowledge and perceived understanding. Further research could

focus on implementing schoolwide systems to support children with internalizing disorders within the classroom setting. Additionally, the researchers could examine how multi-tiered systems support a whole-child approach.

5.3.3 Limited impact

The sample size of this study was relatively small. Although almost 70% of the staff participated in the initial research, the study's sample size was 27 participants.

Of significance was the inclusion of all staff members, not just those with professional licensure. Leaders should further explore the impact of creating learning opportunities for an entire school community in moving a staff forward with a shared vision and understanding. Future research could also look at the effects across a district and a larger cohort of learners.

Of note is the importance of creating a framework for common and precise language when discussing anxiety and depression as internalizing disorders. Future research could examine the effects this common language has on improving and fostering supportive and meaningful discussions between all educational staff members. This researcher suggests exploring this impact beyond the currently limited sample size.

5.4 Implications for Future Research

5.4.1 Long-term learning

The findings from this study showed significant gains in professional knowledge and perception of that knowledge for all learners. Further to be explored would be the longitudinal effects of this learning. Can the virtual book study experience create a lasting mental health literacy knowledge base?

Future research could examine if the foundational knowledge obtained in a virtual book study is secure a year later. Future research could also investigate the long-term effects of this learning on a building's culture and the school's identification of students with special needs, specifically depression and anxiety, as internalizing disorders.

This study showed an increase in collective efficacy and a desire to move forward with the next steps of mental health literacy learning. Longitudinal research could explore how leaders involve and engage staff in future learning, stemming from strengthening foundational knowledge. Long-term learning should be the focus of the next steps. This learning could include coursework specific to mental health literacy, as provided by the University of British Columbia, to reinforce and extend knowledge specific to mental health promotion, prevention, and care.

5.4.2 Virtual learning

This book study utilized a virtual format via the Zoom platform. Digital technologies have the potential to transform teacher learning (Mineia-Pic, 2020). Research should further explore the effectiveness of virtual book study formats related to reaching broader learning communities.

Additionally, school leaders could explore staff engagement with the virtual learning format as a more accessible learning platform. Researchers could create a comparison study with a virtual and in-person book study format specific to developing mental health literacy.

Further research should explore the clear expectations of a shortened virtual learning experience and its appeal to a professional group as a reasonable and obtainable learning opportunity. Additional studies could examine the effectiveness of micro-credentials in the area of mental health literacy.

The virtual delivery could lead the researcher to question the authenticity of the mental health literacy knowledge gained. Recommended for further studies would be sharing clear expectations at the beginning of the study. Expectations should highlight that work is done independently and without support. This addition is not to discount or invalidate the collected data from this study but to clarify expectations for participants in future research.

5.4.3 Increased scope

Future research could extend the professional development to all elementary schools across a district. Professional development frameworks should be consistent and planned across a district. School leaders should consider the impact of creating learning experiences, such as this virtual book study, within an already established professional development framework.

Linking the work of mental health literacy to a district's strategic plan could also be of consideration. Additional research could analyze current professional development delivered within schools and align with the district vision and goals.

This study took place in a relatively small suburban elementary school. Future research could engage in study replication across urban and rural settings. A variety of educational settings

could also be of study interest. Private, parochial, and charter schools could be additional settings to explore. Additionally, pre-service teaching programs could be a consideration for further study replication.

5.4.4 Mental health literacy training

Guskey and Yoon (2009) confirm the challenge of indirectly translating professional development into student achievement gains. Further research could critically assess and evaluate the effectiveness of mental health literacy training, specific to depression and anxiety as internalizing disorders and explore the impact upon supporting classroom practices.

Mental Health Literacy includes the understanding of mental health disorders as well as understanding treatments. This study was limited as it did not extend staff learning in treatments/strategies to address mental health disorders. Expanding mental health literacy professional development and continuing the book study format could be explored. Staff should continue to be mindful of their roles in supporting students with mental health concerns. Although knowledge of treatments could be explored, only licensed mental health professional staff should be providing these targeted supports.

As previously noted, additional training through the University of British Columbia specific to their online mental health literacy course may also be of future consideration. Future learning should emphasize the importance of staffs' roles when supporting students with anxiety and depression in the classroom.

Although increasing their mental health literacy, it is essential to note that staff should not consider themselves mental health experts. Implementation of strategies and diagnosis is the work

of mental health professionals. Further studies should emphasize the roles that various staff members play in supporting students with anxiety and depression in the classroom setting.

5.5 Comparison Study

The present study stemmed from research conducted by Nelson (2019). Nelson led a nine-week book study utilizing the same mentor text, *Helping Students Overcome Depression and Anxiety: A Practical Guide* by Merrell (2008). Notably shorter in length and session duration, the present study focused primarily on developing pedagogical knowledge and the educators' perception of that foundational understanding. The present study consisted of 150 minutes of virtual learning to support the book study experience. The Nelson study involved participants in 180 minutes of in-person learning and had significantly more content covered.

Although shorter in scope, the researcher identified themes from this study and compared them to the research conducted by Nelson (2019). Codes about *the book study experience, lack of literacy/gained knowledge, emotional expression, metacognition, and reflective practices* were evident throughout the written reflections in both studies. As the present study had a limited scope and sequence, codes derived by Nelson (2019) were reviewed but were not able to serve as a direct comparative analysis.

Table 11 highlights what this researcher thought was the most significant comparison in evolving study findings. It compares the final reflection opportunity questions in this study with the journal reflection question in the Nelson (2019) study. Although this study identified four themes versus the nine primary codes in the Nelson study, common understandings were evident.

Table 11. Miner Study Qualitative Comparison to Nelson (2019)

Final Reflection Miner Study: <i>I'd like to know what you feel your biggest learning takeaways are and your plan to utilize what you've learned to support students with anxiety and depression within the classroom.</i>	Reflection Journal Nelson Study: <i>Please help me understand how you are making meaning out of the readings and discussion by providing a reflection on what you have learned from the reading and discussion in this week's session.</i>
17 respondents	17 respondents
Emerging Themes – 4	Primary Codes - 9
Student-Centered Response	Beliefs/Opinions
Deeper Understanding of Internalizing Disorders	Book Study Experience
Beginning to Utilize a Mental Health Lens – Mental Health Literacy Improved	Lack of Literacy
Universal Instruction/SEL supports	Expressed Emotion
	Interventions to Use
	Knowledge
	Metacognition
	Reflective Practices
	Referrals

Both studies had participants reflecting upon strengthening their foundational knowledge and reflecting upon current practices. Both seemed to create opportunities for staff members to increase knowledge and increase their perceived understanding of mental health specific to depression and anxiety symptoms in elementary children. This increased knowledge seemed to drive the staff to question practices and to show emotions as they reflected and planned for the next steps.

5.6 Implications for Practice

5.6.1 Modified professional development

This research study had limitations of scope and format due to the COVID-19 pandemic. This researcher delivered the book study professional development via a virtual format. Learning sessions were succinct and focused on learning goals specific to mental health literacy.

Providing professional development is often limited by the time available for training. During the professional learning, this researcher adhered closely to timelines and session lengths to honor the participants' commitment to the learning experience.

The virtual format of this book study may have allowed for staff, who themselves may have had personal connections with mental health struggles (specifically depression and anxiety), the opportunity to develop anonymity with the ability to turn a camera off or mute themselves from a discussion. As we note the trauma sometimes associated with mental health concerns, we must remain cognizant of a staff's personal and historical connections with these internalizing disorders. School leaders should look at mental health learning through a trauma-sensitive lens.

5.6.2 Increased staff engagement

Leadership plays a crucial role in developing staff engagement. Employee engagement is the amount of cognitive and emotional energy employees put into their position (Serrano & Reichard, 2011). When we ask staff to participate in professional learning, we want them to be cognitively and emotionally open to the learning. A virtual book study format of professional

learning may engage an already overworked and stressed staff and provide the staff with an environment to explore new knowledge. Results from this study indicate a highly engaged staff.

School leaders should consider the content and format of their professional development when engaging staff in new learning. This study directly linked its content to information shared by the school's leadership team the prior year and a desire to address their students' increasing mental health needs. Additionally, the virtual book study format was concise and targeted with clear expectations and learning opportunities to develop the staff's mental health literacy.

5.7 Conclusions

The mental health needs of elementary students are not always met because educators lack the knowledge and tools to do so (Kutcher et al., 2016). As districts seek opportunities to systematically develop approaches to address the rise in mental health concerns, opportunities to examine professional development content are at the forefront (Anderson-Butcher et al., 2008). This study presented an opportunity to impact a professional development system to better support the mental health needs of elementary students.

This study identified several interesting findings. First, it showed a lack of foundational knowledge and a lack of perceived understanding of mental health concerns specific to depression and anxiety as internalizing disorders in elementary students. Second, by committing to a research study on mental health issues in children, it is evident that educators are willing to learn more and recognize this lack of knowledge. Next, the researcher found that a shortened book study experience could significantly impact foundational knowledge and developing pedagogy. This knowledge could increase educators' perception of such learning. Finally, the study showed that

a virtual book study could effectively present information and strengthen a staff's mental health literacy.

Of significant importance is the capacity of professional development to change perception and influence staff culture. This knowledge gain can create a foundation for further learning, as noted in the open-ended responses. Additionally, this study sample consisted of trained professional educators and all staff across the building. These results show that all staff members, regardless of formal training, developed foundational knowledge.

Educators desire to do more and to learn more to support their students. If we want to address the rise in mental health concerns and support student mental health needs within our schools, school and district leaders must give staff opportunities and knowledge to do so.

Appendix A Recruitment Script

Introductory Script, M. Miner MHL

Good afternoon,

As many of you are aware, I am currently a doctoral candidate at the University of Pittsburgh and am in the process of beginning research for my dissertation. As I've had discussions with many of you previously, my interest in the mental health of our students; specifically, those diagnosed with anxiety and depression continues to be on the forefront of my mind. The purpose of this research is to examine the effectiveness of a book study on mental health literacy. Mental Health Literacy is one's knowledge and beliefs about mental health diagnosis and specific to our situation, what can be done to recognize and provide support within the classroom setting. A growing number of students are now diagnosed and struggle with a mental illness. Research shows that at least 20 percent of children have a diagnosable mental illness and yet, professional development and pre-service teaching coursework to address such needs is not readily accessible.

This study will allow us to learn and grow our mental health literacy as I strive to learn where an elementary staff's knowledge of mental illness is lacking, what you'd like to learn, and then reflect upon your perception of what knowledge is gained and how it can be applied to the classroom. We will come together, virtually via Zoom for five professional learning sessions at 45 minutes each to explore mental health literacy by utilizing the book Helping Students Overcome Depression and Anxiety: a practical guide by Kenneth W. Merrell. This book will be provided for you and we will delve into several of the selected chapters as we explore mental health and have valuable discussions as this discourse may strengthen our mental health literacy. All participants must be employees at Lincoln elementary and there is no compensation for participating in this study. Additionally, there is no foreseeable risk associated with this project, nor are there any direct benefits to you.

There will be a pre-assessment to determine baseline knowledge, journaling opportunities throughout, and reflective knowledge-based questions at the end of the professional learning. Participation is strictly voluntary and all data collected will be done so anonymously as responses will not be identifiable in any way. All confidential information and results will be kept in secure password protected files. Please note that you may choose to discontinue with the study at any time. If you are interested in participating, please fill out this form. If you have any further questions, please feel free to reach out to me directly. I thank you immensely in advance for your time.

Be well,
Michelle Miner
Principal Researcher; Pitt EdD Student

Appendix B Pre- and Post-Surveys



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

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

Please rate your understanding of internalizing disorders in children and adolescents where 0 is No Understanding and 5 is Complete Understanding.

0 1 2 3 4 5

0 - No Understanding

For the question below, please rate your understanding of each of the following categories of contributing factors to internalizing disorders where 0 is No Understanding and 5 is Complete Understanding.

0 1 2 3 4 5

Biological Influences

Family Influences

Psychological Stress and Life Events

Cognitive Influences

Behavioral Influences

What is your pseudonym?



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

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

Please rate your understanding of internalizing disorders in children and adolescents where 0 is No Understanding and 5 is Complete Understanding.

0 1 2 3 4 5

0 - No Understanding

For the question below, please rate your understanding of each of the following categories of contributing factors to internalizing disorders where 0 is No Understanding and 5 is Complete Understanding.

0 1 2 3 4 5

Biological Influences

Family Influences

Psychological Stress and Life Events

Cognitive Influences

Behavioral Influences

Thank you again for participating in our book study. I'd like to know what you feel your biggest learning take-aways are and your plan to utilize what you've learned to support students with anxiety and depression within the classroom.

What is your pseudonym?

Appendix C Non-scored Journal Response Questions

1. After this learning session, something that most surprised me was/or my biggest takeaway was...?
2. After this learning session, something I'm still wondering about is...?

Bibliography

- 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*. <http://apps.npr.org/mental-health/>
- Anderson-Butcher, D., Lawson, H. A., Bean, J., Flaspohler, P., Boone, B., & Kwiatkowski, A. (2008). Community collaboration to improve schools: Introducing a new model from Ohio. *Children & Schools*, 30(3), 161–172. <https://doi.org/10.1093/cs/30.3.161>
- 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.
- Anwar, N. (2020). *Ensuring mental and psychosocial well-being*. https://www.who.int/docs/default-source/mca-documents/8w-1-dr-nazneen.pdf?sfvrsn=232a486d_2
- Association for Supervision and Curriculum Development. (2007). *Whole child initiative*. <http://www.ascd.org/whole-child.aspx>
- Basch, C. E. (2013). Investing in healthier students. *School Administrator*, 70(7), 18–26.
- Bains, R. M., & Diallo, A. F. (2016). Mental health services in school-based health centers: Systematic review. *The Journal of School Nursing*, 32(1), 8–19.
- Children's Hospital Colorado. (2021). *Children's Hospital Colorado declares a 'state of emergency' for youth mental health*. <https://www.childrenscolorado.org/about/news/2021/may-2021/youth-mental-health-state-of-emergency/>
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Learning Policy Institute.
- Donohoo, J., Hattie, J., & Eells, R. (2018, March). The power of collective efficacy: When teams of educators believe they have the ability to make a difference, exciting things can happen in a school. *Educational Leadership*. https://educacion.udd.cl/files/2021/01/The-Power-of-Collective-Efficacy_Hattie.pdf
- Greene, R. (2014). *Lost at school: Why our kids with behavioral challenges are falling through the cracks and how we can help them*. Scribner.

- Greene, R. (2018). Transforming school discipline: Shifting from power and control to collaboration and problem solving. *Childhood Education*, 94(4), 22–27.
- Gresham, F. (2016). Social skills assessment and intervention for children and youth. *Cambridge Journal of Education*, 46(3), 319–332.
- Guerriero, S. (2017). *Pedagogical Knowledge and the Changing Nature of the Teaching Profession*, OECD Publishing.
- Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching*, 8(3), 381–391.
- Guskey, T. R., & Yoon, K. S. (2009). What works in professional development? *Phi Delta Kappan*, 90(7), 495–500. <https://doi.org/10.1177/003172170909000709>
- Hattie, J., & Zierer, K. (2019). *Visible learning insights*. Routledge.
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288.
- Jones, S. M., Barnes, S. P., Bailey, R., & Doolittle, E. J. (2017). Promoting social and emotional competencies in elementary school. *The Future of Children*, 27(1), 49–72.
- Kluth, P., & Causton, J. (2016). *30 days to the co-taught classroom*. North Loop Books.
- Koller, J. R., & Bertel, J. M. (2006). Responding to today's mental health needs of children, families and schools: Revisiting the pre-service training and preparation of school-based personnel. *Education and Treatment of Children*, 29(2), 197–217.
- Korinek, L. (2021). Supporting students with mental health challenges in the classroom, *Preventing School Failure: Alternative Education for Children and Youth*, 65(2), 97–107. <http://doi.org/10.1080/1045988X.2020.1837058>
- Kutcher, S., Wei, Y., & Coniglio, C. (2016). Mental health literacy: Past, present, and future. *Canadian Journal of Psychiatry*, 61(3), 154–158. <http://doi.org/10.1177/0706743715616609>
- Merikangas, K. R., He, J., Burnstein, M., Swanson, S. A., Avenevoli, S., Cui, L., Benjet, C., Georgiades, & K., Swendsen, J. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Survey Replication–Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(10), 980–989.
- Merrell, K. W. (2008). *Helping students overcome depression and anxiety: A practical guide* (2nd ed.). Guilford Press.

- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage.
- Miller, L., Taha L., & Jensen E. (2013). 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* (pp. 43–57). Springer.
- Milner, H. R. (2001). *Let's focus on gaps in opportunity, not achievement*. <https://www.edweek.org/leadership/opinion-lets-focus-on-gaps-in-opportunity-not-achievement/2011/05>
- Minahan, J., & Rappaport, N. (2012). Anxiety in students a hidden culprit in behavior issues. *Phi Delta Kappan*, 94(4), 34–39.
- Mraz, K., & Hertz, K. (2015). *A mindset for learning: Teaching the traits of joyful, independent growth*. Heinemann.
- Nelson, M. M. (2019). *Educator literacy concerning elementary students' anxiety and depressive disorders* [Unpublished doctoral dissertation]. University of Pittsburgh.
- 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.
- Portnow, S., Downer, J. T., & Brown, J. (2018). Reductions in aggressive behavior within the context of a universal, social emotional learning program: Classroom- and student-level mechanisms. *Journal of School Psychology*, 68, 38–52.
- Serrano, S. A., & Reichard, R. J. (2011). Leadership strategies for an engaged workforce. *Consulting Psychology Journal: Practice and Research*, 63(3), 176–189. <https://doi.org/10.1037/a0025621>
- Shah, H., & Kumar, D. (2012). Sensitizing the teachers towards school mental health issues: An Indian experience. *Community Mental Health Journal*, 48, 522–526. <https://doi.org/10.1007/s10597-011-9437-2>
- Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development*, 88(4), 1156–1171. <https://doi.org/10.1111/cdev.12864>
- Tough, P. (2012). *How children succeed: Grit, curiosity, and the hidden power of character*. Houghton Mifflin Harcourt Publishing.
- 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. <http://10.1186/1471-2458-14-210>

- Wilkinson, P. (2009). Conceptualization about internalizing problems in children and adolescents. *Ciência & Saúde Coletiva*, 14(2), 373–381.
- Zins, J. E., Payton, J. W., Weissberg, R. P., & O'Brien, M. U. (2007). Social and emotional learning for successful school performance. In G. Matthews, M. Zeidner, & R. D. Roberts (Eds.), *The science of emotional intelligence: Knowns and unknowns* (pp. 376–395). Oxford University Press.
- Zirkel, P. A., & Weathers, J. M. (2016). K–12 students eligible solely under Section 504: Updated national incidence data. *Journal of Disability Policy Studies*, 27(2), 67–75.