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Internalizing Disorders in Early Childhood: Professional Development Framework for Teachers

By

Danielle A. Guttman

A dissertation submitted to the Graduate Faculty in Educational Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

2014

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This manuscript has been read and accepted for the Graduate Faculty in Educational Psychology: School Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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**Abstract**

## Internalizing Disorders in Early Childhood: Professional Development Framework for Teachers

By

Danielle A. Guttman

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Recent research indicates that internalizing disorders such as depression, anxiety, and posttraumatic stress disorder (PTSD) manifest in young children. Since early childhood teachers spend a substantial portion of their day with young children, it is important to examine their beliefs and behaviors surrounding these disorders. The role of the school psychologist has come to include providing support for educators such as presenting up-to-date research through professional development (PD). The current investigation implemented an intervention designed to compare different forms of PD seminars (“Information” and “Strategies”) designed to increase teachers’ awareness of internalizing disorders in early childhood. Ninety-nine participants comprised the three groups. The Information approach focused on presenting symptoms and detailed an ecological and preventative approach. The Strategies approach presented tools and strategies for classroom management. Participants’ perceptions were measured through pretests and posttests. Demographic results indicated that most participants reported receiving no training on social or emotional issues in the classroom. Significant time and group effects were found for assessing participants’ self-perceptions of preparedness to tackle depression, anxiety, and PTSD in their classrooms. Although both intervention groups increased in self-perceived preparedness from pretest to posttest, significant differences were not found between the two intervention groups. Other findings and qualitative data suggested areas for future research. Implications within the practice of school psychology were addressed.

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## **Chapter 1: Introduction**

In early childhood (birth through age 8) teachers provide the first on-going relationship beyond primary caregivers. As such, teachers are in an optimal position to impact children's socio-emotional development. Typically when children are having behavioral difficulties, they fall into two categories: internalizing and externalizing behaviors. Externalizing behaviors, such as aggression, are disruptive and visible. Internalizing problems are not always visible and typically occur within the child sometimes manifesting as passivity. Such behaviors include withdrawal, sadness, worrying and appearing aloof. Internalizing behaviors are consistent with anxiety and depression. The current investigation focused on internalizing problems in early childhood as research has shown that these symptoms can be seen in children as young as preschoolers (Kataoka, Langley, Wong, Baweja, & Stein, 2012; Luby et al., 2002; Mrakotsky, 2001; Spence, Rapee, McDonald, & Ingram, 2001; Stalets & Luby, 2006;).

In October 2012, Superstorm Sandy disrupted the lives of many living in the New York metropolitan area. Additionally, media reports of school violence such as those that took place at Sandy Hook Elementary school in December 2012 have caused angst among youngsters. Children directly impacted by these events are at a higher risk for developing one specific type of anxiety condition, posttraumatic stress disorder (PTSD). Consequently, PTSD was also included in the concept of "internalizing problems" addressed in this investigation.

Educational research has categorized young children who may be showing signs of internalizing differently, without employing the diagnostic terms of depression, anxiety, or PTSD. Numerous researchers have analyzed teacher ratings of student behaviors into various categories of functioning. Children exhibiting internalizing symptoms are not functioning as well as their typically developing peers, appearing withdrawn and showing early signs of

academic difficulties (Bulotsky-Shearer, Fantuzzo, & McDermott, 2010; Denham et al., 2012; Fantuzzo et al., 2007). These children, displaying internalizing problems in early childhood, are more likely to be depressed and have academic difficulties later on compared to peers (Meagher, Arnold, Doctoroff, Dobbs & Fisher, 2009). Furthermore, since teachers' attention is more focused on those students who are acting out in class, they are less apt to notice children who are showing impairments without disrupting class (Fantuzzo, Bulotsky, McDermott, Mosca, & Lutz, 2003). Although teachers feel confident to provide supportive environments, they may lack the skills or knowledge to assist students following a traumatic event (Alisic, 2012). In light of the negative consequences associated with internalizing disorders, the lack of attention paid to these behaviors is troublesome. It is paramount to educate teachers on the manifestations of internalizing disorders so they can be more sensitized to identify these "forgotten" students. Students spend most of their day with their teachers, and those teachers are already paying attention to their academic growth and externalizing behaviors. Clearly they would be in the best possible position to notice internalizing behaviors. Exploring teachers' training may shed light on how teachers are prepared to deal with these internalizing issues (Onchwari, 2010).

In schools, teachers do not have to tackle mental health issues alone as the in-house school psychologist may serve as a consultant. The role of a school psychologist is not only to provide psycho-educational testing and counseling for students, but also to provide consultation and support for adults in the school setting. The field of school psychology has embraced a more indirect model of service rather than a direct model, focusing on individual students (Ysseldyke, Burns, & Rosenfield, 2009). School psychologists' training in principles of diagnosis as well as educational and learning principles provides a unique opportunity to convey information to teachers about psychological disorders through consultation or professional development (PD).

A school psychologist is often called upon to present the latest research findings to school personnel. A school psychology doctoral intern implemented the current PD intervention.

The purpose of the present study was to investigate the effectiveness of two PD approaches with early childhood teachers concerning children's manifestation of internalizing behavior problems. This study was based upon a pilot study in which the principal investigator (PI) implemented a PD training seminar for early childhood teachers. Participants completed pretests and posttests about their perceptions of depression and anxiety and read vignettes that described children manifesting such symptoms. The PD began with symptoms of anxiety and depression in early childhood presented through an ecological framework, followed by specific classroom strategies in the second session. A behavior monitoring tool created for the intervention was introduced in which teachers kept track of a problem behavior by noting the time of day, frequency, and precipitating events. Classroom management strategies were presented from Head Start that focused on encouraging positive interactions with the child, easing transitions during the school day and using a whole classroom approach to tackle various issues (Domain 6, 2003).

The intervention increased participants' perceived level of preparedness to deal with children who may be depressed and/or anxious. Prior to the intervention, in response to the vignettes, teachers wrote about strategies that they would implement independently. After the intervention, teachers' responses changed, as they were equipped with more strategies such as monitoring behavior and using a whole classroom approach. This suggests that teachers were willing to incorporate new strategies into how they tackled hypothetical situations. Informally, teachers reported preference for the strategies portion of the presentation as it presented practical lessons.

The present study hopes to build on these findings utilizing a three-group (Information, Strategies, and Control) pretest-intervention-posttest design. Participants were early childhood teachers working with children from birth through age 9. The Information PD intervention group received material about internalizing disorders in youngsters including relevant research about long-term effects and manifestations in the classroom utilizing an ecological/problem solving approach. Symptoms were also examined in the context of the prevention model, Response to Intervention (RTI), and Positive Behavior Supports (PBS). These approaches foster whole classroom approaches and targeted support for children having difficulties. The alternative PD intervention group, Strategies, received material about classroom applications including the behavior monitoring tool and Head Start strategies as they fit into the RTI/PBS model.

The research questions address general descriptive concerns about teachers' preparation to deal with internalizing behaviors in young children, and a comparison of the effectiveness of the two approaches to PD for teachers regarding these behaviors, specifically:

1. Do early childhood teachers receive training about children's internalizing behaviors? If so, in what context does this training occur?
2. Will early childhood teachers' feelings of preparedness to handle young children's internalizing symptoms change from before the interventions to after the interventions?
3. Will didactic (Information) vs. applied (Strategies) PD sessions affect teachers' self-perceived competence differently?
4. Will teachers' responses to internalizing symptoms on vignettes tend to focus on implementing a specific plan with the child or broader classroom-based changes?

Participants were recruited from nearby school districts and teacher organizations. One participant was observed in her classroom before the intervention and others were interviewed after the intervention to examine the relationship between reported beliefs and actual classroom behaviors. Participants completed a pretest and posttest similar to the pilot study examining self-perceived levels of preparedness and responding to vignettes. School psychology graduate

students rated vignettes to determine if they describe children exhibiting internalizing problems. Results were analyzed to determine if there are changes in teachers' reported beliefs and behaviors before and after the intervention, and to compare the effects of the two intervention approaches. Treatment groups were compared to each other and to the Control group, to examine significant differences in intervention effectiveness.

Findings from this investigation shed light on effective means of providing PD to teachers about internalizing behaviors in their students. Implications include a framework for school psychologists to implement with their colleagues to promote wellness amongst their students.

## **Chapter 2: Literature Review**

The following literature review will discuss manifestations of internalizing problems such as depression, anxiety, and posttraumatic stress disorder (PTSD) within the early childhood (birth through age 9) population. Additionally, long-term effects such as academic readiness, co-morbidity with other disorders, as well as longitudinal studies examining long-term effects will be outlined. Studies that examined teachers' reactions to students' behavior issues will be analyzed in order to understand how teachers respond to these instances in their classrooms. Additionally, literature on Professional Development (PD) will be discussed to examine existing research on the effectiveness of training teachers about emotional development. Furthermore, research on the importance of PD in the practice of school psychology will be reviewed.

### **Internalizing Problems in Preschoolers**

This section examines behavioral manifestations of internalizing problems in preschoolers. In order to examine teachers' beliefs and behaviors related to internalizing problems, these problems must be defined in terms of behavioral characteristics. Studies are discussed which detail these behavioral characteristics in young children. This section concludes with a review of research on the effects of these internalizing problems on children when they enter school.

**Manifestations of internalization in preschool children.** Luby (2010) described preschool depression as similar to depression in adults in that these youngsters exhibit anhedonia, reduced enjoyment in previously enjoyed activities. Additionally, there are changes in sleep patterns in young children, with either difficulties or excessive sleep. Depressed preschoolers may also exhibit changes in their energy level and express feelings of overwhelming guilt. Through interviews with depressed preschoolers, Luby and colleagues (2002) found that these children

reported more depressed feelings and symptoms than controls. This suggests that depressed preschoolers are aware of their feelings and malaise.

Stalets and Luby (2006) noted that preschoolers experience certain developmental tasks that may serve as stressors. For instance, preschool may serve as the child's first school experience interacting with peers and being away from their primary caregivers. Additionally, parents may have behavioral and academic expectations about their children as they reach this milestone. Most children will probably adjust to these changes with no negative socio-emotional or behavioral consequences. Other children, however, may show some signs of emotional difficulty. The authors surmise that for young children, depressed mood can include irritability. Guilt or self-destructive themes may not be expressly stated by youngsters when they are having trouble coping, but instead may be evident in their play. It is difficult to identify which youngsters' symptoms will resolve on their own and which youngsters' symptoms will manifest into a more serious problem. Mrakotsky (2001) found that, similar to findings with adults, preschoolers showing symptoms consistent with depression identified more female faces as sad compared to preschoolers without symptoms.

Anxiety has been noted in young children for decades. Spence, Rapee, McDonald, and Ingram (2001) conducted a factor analysis of parental report of anxious symptoms based on a community sample, finding five main factors: "social phobia, separation anxiety, obsessive compulsive disorder, fears of physical injury and generalized anxiety" (Spence et al., 2001 p. 1310). Some symptoms of anxiety in youngsters manifest as extreme worries across areas such as: environmental fears (e.g., the dark), fears of talking in front of others, fears about being left with a babysitter, and excessive checking to make sure he/she is correct. These findings suggest

that anxiety in early childhood, as in adulthood, is multifaceted and occurs in both the clinical and nonclinical population.

A specific type of anxiety disorder that may impact school functioning is PTSD. Children may develop this disorder if they manifest distress after having endured a traumatic event where there was a danger to the safety of themselves or others (Kataoka, Langley, Wong, Baweja, & Stein, 2012). PTSD symptoms typically cluster around three areas: “re-experiencing,” “numbness and avoidance,” and “hyperarousal” (Kataoka et al., 2012, p. 2). In re-experiencing, children repeatedly relive the event through play. Numbness and avoidance is when children avoid discussing the event and experience anhedonia. When children experience hyperarousal, they are more sensitive to stimuli similar to that of the trauma. PTSD symptoms can be persistent and enduring, negatively affecting children’s development (Berger, Pat-Horenczuk, & Gelkopp, 2007). Young children are able to describe their emotions, but are unable to express abstract thoughts about their experiences (Cook-Cottone, 2004). As a result, this group manifests PTSD behaviorally, including regressions (i.e., bedwetting) and internalizing behaviors. Children who have experienced trauma perform lower on cognitive measures and have lower grades than their peers (Barnett 2007 & Schwab-Stone, 1999 as cited in Cook-Cottone, 2004). Children who develop PTSD are at a higher risk for developing co-morbid issues such as anxiety and depression.

**Internalizing children in the classroom.** In educational research, although the diagnostic labels of depression and anxiety (including PTSD) are not generally used, children demonstrating these signs of distress are identified as not functioning as well as their typically developing peers. A literature search was conducted to explore internalizing symptoms within early childhood educational settings. On one hand, there were almost no articles found when

using the search terms “anxiety” or “depression” for describing these children’s behaviors and performance within the classroom. On the other hand, there was a body of literature when the search included “adjustment” and “withdrawal” for children. Children are not being identified or referred for psychological evaluation by teachers for internalizing problems, yet there is recognition that their functioning is impaired both socially and academically. The split between depression, anxiety, and PTSD that may be seen with older populations is not applied in educational research with young children. It seems, however, that educators do characterize children who exhibit these symptoms as “having difficulties.” In school, children who show internalizing symptoms are socially isolated and appear withdrawn, and some show early signs of academic difficulties. Since teachers’ attention is more focused on those students who are acting out in class (externalizing behaviors), they are less apt to recognize children who are experiencing internalizing difficulties unless it impacts their classroom functioning. Therefore, it is paramount to educate teachers on the manifestations of internalizing disorders documented in the psychological research literature so they can be more in tune with these “forgotten” students.

Denham, Bassett, and Zinsser (2012) sought to explore socio-emotional learning (SEL) amongst Head Start students. SEL includes many aspects of group functioning such as relationships with others, self-efficacy, emotional competence, and self-regulation. The authors sought to identify subgroups of students based on SEL, and suggest that it is more fruitful to take a person-centered rather than a variable-centered approach. In this way, one can examine how different demographic factors affect a child’s functioning. The goal was to create SEL profiles for children’s varying types of functioning and compare them to school related success. This was measured by collecting data from teacher ratings and classroom observations the year prior to kindergarten and then again at the end of kindergarten.

Results indicated that there were three clusters: Cluster 1: SEL risk, Cluster 2: SEL competent social/expressive, Cluster 3: SEL competent-restrained. Cluster 1 represented children who were demonstrating aggressive, externalizing behaviors. Children in Cluster 2 appeared to be more emotional (both sad and happy) but overall engaged in the most pro-social behaviors with peers. Cluster 3 represented children who are showing signs of withdrawal or anxiety, having few pro-social relationships. This group of children includes the group that the current investigation is targeting. Children in this group were able to engage properly in social problem solving. However, these children also tended to choose more angry and aggressive responses than Cluster 2 who tended to choose more pro-social responses. Cluster 3 children were viewed as more cooperative than other groups by their teachers. This is similar to the prototype of the depressed child who is often forgotten: “Johnny is so good that sometimes I forget that he is here.” What may appear cooperative to teachers trying to manage chaotic classrooms may actually be the acquiescence or passivity of a child suffering from internalizing symptoms.

In order to examine preschool student functioning by using teachers as informants, a number of research studies used the Adjustment Scales For Preschool Intervention (ASPI). This tool measures a variety of aspects of child functioning within early childhood settings (Bulotsky-Shearer, & Fantuzzo, 2012). The ASPI presents teachers with both maladaptive and adaptive behaviors, across various classroom situations including how they interact with one another and with adults. Items include the child’s tendency to play either with others or independently, the child’s reaction to transitions, perseverance on difficult tasks, and aggression towards others (Bulotsky-Shearer, Fantuzzo, & McDermott, 2010). Research on the construct validity of this tool indicates certain patterns of children’s maladaptive behaviors including: Aggressive

Oppositional, Inattentive/Hyperactive, Withdrawn/Low Energy, Socially Reticent. The last two dimensions are most important in the current investigation. This tool has been found to have evidence of reliability and validity and is especially useful in settings with disadvantaged and low-income youth (Bulotsky-Shearer & Fantuzzo, 2012). Research with this tool will be discussed to determine the types of internalizing problems exhibited in young children.

Fantuzzo and colleagues (2007) used teacher ratings to create person-centered profiles of classroom behavior in Head Start students. The authors used a latent structure analysis to find two dimensions of academic behavior: “regulated” and “disengaged.” Disengaged behavior included withdrawal and a lack of emotional connection. Teachers completed the ASPI and the Preschool Learning Behaviors Scale (PLBS), which examined students’ behaviors across three dimensions: Competence/Motivation, Attention-Persistence, and Attitudes toward Learning (McDermott, Leigh, & Perry, 2002). Responses to the two measures revealed differences in typologies among children. The Withdrawn/Low Energy and Socially Reticent typologies of interest to us included children who did not persevere on difficult tasks, played independently, and had some difficulties with transitions. These students’ scores had a negative loading on the Competence/ Motivation dimension. This indicated that children who demonstrated difficulty engaging in classroom activities were more likely to be perceived by teachers as unsuccessful and aloof compared to typical peers. Furthermore, disengaged children performed more poorly on school readiness activities such as classroom behavior, overall academic functioning, and more specifically math skills compared to their regulated peers. Bulotsky-Shearer and Fantuzzo (2010) identified different types of adjustment in low-income children based on this behavioral typology: “Well adjusted, adjusted with some peer problems, mildly socially disengaged, mildly socially disruptive, extremely socially disruptive, and extremely socially and academically

disengaged” (Bulotsky-Shearer & Fantuzzo, p. 184). For the purposes of this investigation, we will focus on the “mildly socially disengaged” and “extremely socially and academically disengaged” subtypes. According to teacher ratings on the ASPI, mildly socially disengaged students appeared to be withdrawn and socially reticent. These children avoided initiating play with others and seemed less invested in play. Mildly disengaged students also had some negative teacher interactions. Extremely socially disengaged students were even more withdrawn and socially reticent than the previous subtype and demonstrated difficulties in learning tasks and teacher interactions. This suggests that when internalizing symptoms are more serious they can impact academic performance.

Research has shown vast variations in children’s behavior, differentiating them on dimensions such as emotional regulation or aggression as detailed in Table 1. Despite using different terminology, these three approaches are showing an overlapping trajectory of children’s behavior from early signs to more serious internalizing symptoms. When behaviors begin to emerge, teachers identify internalizing students as more compliant compared to their typical peers. However, as these behaviors intensify, teachers begin to identify major concerns such as poor academic performance and social reticence. Denham et al. (2012), Fantuzzo et al. (2007), and Bulotsky-Shearer et al. (2010) each explored children’s behaviors (either externalizing or internalizing) and the impact of their behaviors on their academics. Each of the articles identifies a specific student subtype (i.e., Denham’s “Competent-restrained,” Fantuzzo’s “Disengaged” group; Bulotsky’s “Mildly socially disengaged,” and “extremely socially disengaged”) who appeared to be demonstrating internalizing symptoms such as social withdrawal, lack of vitality, and avoiding peers. These are keystone symptoms of internalizing problems. There are slight differences when comparing the academic performance of these typologies. Denham found that

“competent-restrained” youth performed academically on average when compared to peers.

Bulotsky-Shearer et al. (2010) found that “mildly socially disengaged” children perform on average or below average on academic tasks. With these categories, Denham et al. (2012) and Bulotsky-Shearer et al. (2010) included students with subclinical levels of symptoms. Bulotsky-Shearer’s “extremely socially disengaged” type is manifesting more serious internalizing problems, which are negatively affecting students’ academic performance. The distinction is between those children who are manifesting problems that are only observable in the social context (i.e., “competent-restrained,” “mild socially disengaged”) and those whose internalizing symptoms are more seriously affecting academic success (“extremely socially disengaged”). These particular studies did not explore longitudinal data to suggest if the milder typologies are more likely to subside over time or if they are more likely to intensify.

Table 1  
*Three Approaches to Internalizing Behaviors in School*

Descriptive Term	Defining Characteristics	Comparison to Peers
Competent-restrained type  (Denham, Bassett, & Zinsser, 2012)	Subclinical levels of symptoms.  Signs of withdrawal or anxiety, having few pro-social relationships.	Academically on average when compared to peer.  Viewed as more cooperative than other groups (even competent-social/ expressive).
Disengaged type  (Fantuzzo, et al., 2007)	Withdrawn and a lack of emotional connection.	Disengaged children performed poorer on school readiness activities such as classroom behavior, overall academic functioning (i.e., math skills) compared to their regulated peers.
Mildly socially disengaged  (Bulotsky-Shearer, Fantuzzo, & McDermott, 2010)	Withdrawn and socially reticent.  Avoided initiating play with others and less invested in play.	Average or below average on academic tasks.
Extremely socially disengaged  (Bulotsky-Shearer, Fantuzzo, & McDermott, 2010)	Some negative teacher interactions. More withdrawn and socially reticent than the previous subtype.  Difficulties in learning tasks and teacher interactions.	Seriously affecting academic success.

**Long-term effects of internalizing symptoms.** We know now that internalizing symptoms affect children's socio-emotional and academic functioning early in life. Research will be summarized that has shown that internalizing problems (symptoms of depression, anxiety, and PTSD) can last beyond the preschool setting, impacting children throughout their childhood. Lavigne and colleagues (1998) found that preschool children who were depressed were still exhibiting depressive symptoms four years after initial diagnosis. A meta-analysis conducted by Oddone, Paolucci, Genuis, and Violato (2001) examined existing research to determine the effects of a traumatic event, specifically, sexual abuse, on children's functioning. Overall, individuals who experienced the event were at a higher risk for developing PTSD and co-morbid anxiety disorders and depression. Children were also at a higher risk for academic struggles. Research has shown that PTSD symptoms have been found to last from six months up to five years after an event (De Young, Kenardy, & Cobham, 2011).

Both the clinical and the educational literatures indicate that internalizing behaviors in children tend to persist. Fantuzzo, Bulotsky, McDermott, Mosca, and Lutz (2003) explored emotional adjustment related to academic performance in preschoolers enrolled in Head Start by collecting data at the start and end of an academic year. Emotional adjustment, from a developmental psychopathology perspective, describes how well a child adapts to her environmental context. Fantuzzo et al. (2003) examined patterns of teacher identification of these internalizing disorders by asking teachers to rate their students' behaviors using the ASPI. Teachers rated children's reactions (both typical and atypical) to various classroom activities throughout the day. The authors found that students demonstrating behaviors consistent with internalizing symptoms, such as playing independently, having trouble with transitions, difficulty persevering on difficult tasks, demonstrated lower scores on academic readiness tasks compared

to their peers. Children who were withdrawn earlier in the year had more trouble engaging in play with their peers towards the end of the year compared to others. Teachers were least likely to identify children exhibiting “underactive adjustment” behavior problems as problematic. This included internalizing behaviors such as withdrawal, difficulty with initiating play with peers, requiring teacher initiated prompts for engagement in classroom tasks. In real world settings, teachers may notice these internalizing symptoms peripherally but do not identify them as worrisome. Furthermore, underactive adjustment was related to difficulties across cognitive and motor coordination dimensions, including fewer receptive and expressive vocabulary skills. Being a withdrawn student earlier in the year was predictive of having difficulty forming positive social interactions later in the year. The authors noted that for many, this indicated a developmental trajectory. Many youngsters may overcome shyness, but for others, developing internalizing symptoms increases the chances of developing other symptoms later.

Teachers in Fantuzzo et al.’s study were not recommending these students for additional support, which put them at risk for developing more serious problems. Overall only about half of the number of children who were showing symptoms consistent with the Withdrawn/Low Energy and Socially Reticent domain were receiving services for a disability. Therefore, it seems as though more children were reported as having difficulties (based on ASPI) than were receiving support. Although it is possible that teachers do notice these children as having difficulties, they are not the main focus of intervention during the school day. The authors suggest that the lack of focus on these children in the literature is due to the fact that these behaviors do not contribute to classroom disruptions, as externalizing problems do. However, it is an alarming problem since these students are much more at risk of having difficulties than their peers, but are substantially less likely to be identified as needing support.

Meagher, Arnold, Doctoroff, Dobbs, and Fisher (2009) conducted a longitudinal study to determine if internalizing problems seen in early childhood predicted depressive symptomology later in childhood. Preschool teachers completed the Child Behavior Checklist–Teacher Report Form which is a comprehensive tool used to gather information on externalizing and internalizing dimensions. Children’s behaviors were also observed and coded by research assistants on the dimension of positive or negative affect. Negative affect included physical manifestations of negative behaviors such as: “frowning, crying, head hanging down, slumped shoulders, whining, or sighing” (Meagher et al., 2009, p. 12). Four years later at follow-up, children completed the Child Depression Inventory. The findings suggested that the internalizing symptoms reported by teachers in preschool were not predictive of self-report ratings three years later. This does not mean that there is no relationship between early symptoms and later symptoms. Instead, Meagher and colleagues suggest that the failure to find a relationship between earlier and later symptoms may be due to teachers’ insensitivity to detect early symptoms. This is consistent with previous research indicating that preschool teachers generally have difficulty detecting internalizing symptoms (Bulotsky-Shearer & Fantuzzo, 2004). In this investigation, reported “social problems and atypical behaviors” by teachers were predictive of later depressive symptoms (Meagher et al., 2009, p. 17). For girls, teacher-observed negative affect and rule breaking were predictive of later self-reported depressive symptoms. This research signifies the importance of ensuring that teachers are aware of symptoms of internalizing problems and the connection between observable behavior and students’ internal feelings. They may see sluggishness, sighing, and whining, but not attribute it to distress within the child.

The disconnect between teachers' ratings of their students and students' ratings of themselves may also just be due to differences in the rater since we are comparing an outsider rating to the rating of the individual experiencing symptoms. Children's inner struggles may not be so apparent to an onlooker as long as they are functioning to a degree. Furthermore, teachers may not be attuned to the internalizing symptoms that students may be experiencing if they are not disrupting class activities. A child hanging her head because she is sad does not provide a disruption in a classroom in the same way as a student who is blatantly hitting another child. This teacher may see the sullen child, but her attention is drawn to focus on the dangerous behavior of the other to maintain control of the classroom.

These varied studies show that preschool children who may be showing signs of depression, anxiety, or PTSD are not functioning well in the classroom. Through factor analyses, research has shown that these students are distinct from typical students and display similar difficulties. Specifically, these youngsters appear to be withdrawn and have trouble initiating peer relationships. Unlike externalizing students, these children may fall under their teachers' radar, as their behaviors are not disruptive to the classroom routine. For those children who demonstrate more serious symptoms, their manifestations not only impact social interaction, but also negatively affect their school readiness and academic performance. This, in turn, can impact their educational functioning for years to come. As a result, this group of students needs to be a primary focus in the discussion of mental health and academics in early childhood settings.

## Teacher Practices

Building on this basic understanding of the internalizing problems in young children and potential academic and psychological consequence, we shift our attention to examining early childhood teachers' reactions to internalizing behaviors. There is not substantial research on teachers' practices specific to internalizing problems. Instead, research has looked at externalizing behavior problems and/or teacher practices related to academics.

LoCasale-Crouch, Mashburn, Downer, and Pianta (2008) explored the effect of prekindergarten teachers' use of transition practices (from prekindergarten to kindergarten) on kindergarten teachers' perceptions of social and academic school readiness in their students. The purpose was to determine if transitional practices would mitigate students' demographic risk factors, specifically low socioeconomic status, maternal education, and minority ethnic status. Methods included teacher observations and teacher completed questionnaires. Kindergarten teachers completed the Teacher-Child Rating Scale, a measure of children's socio-emotional competence (i.e., anxious, disruptive), and the Academic Rating Scale, a measure of literacy. Prekindergarten teachers completed an average of six transitional tasks with their students. The most commonly endorsed item was preschool teachers' sharing written records and meeting to discuss students. Other transitional tasks included but were not limited to: preschoolers (or their teachers) visiting the kindergarten class, having the kindergarten teacher visit the preschoolers, orientation for parents or students, and having meetings with parents. Overall, utilizing more transitional practices in prekindergarten was related to greater positive social and emotional functioning and academic readiness according to the kindergarten teachers. The effect of each transitional practice was compared to see if there were any practices that were significantly more effective than others. Only one specific practice had a more significant effect than others on

scores of positive wellbeing in kindergarten. Students' wellbeing scores were higher when pre-kindergarten teachers conferenced with kindergarten teachers about specific concerns for individual students and/or curricula. While significant, this finding is concerning. Speaking with students' previous teachers may have biased kindergarten teachers' ratings of specific behaviors. It is possible that although these students' behavior did not change, their new teachers may have been more understanding based on their previous performance. Awareness of socio-emotional difficulties may have altered the teacher's objectivity in rating that student. Despite this caveat, this study demonstrates how beneficial transitional practices are for children experiencing drastically changing environments. Furthermore, transitional practices mitigated the effects of risk factors on these young children. Knowing that transitional practices helped children's emotional functioning can help inform the teachers' work with students who may be demonstrating emotional difficulties.

Wilcox-Herzog (2002) sought to explore the relationship between teachers' beliefs about their practice and their actions. Teachers answered a questionnaire about their beliefs regarding the importance of different types of teacher-student interactions as well as their view of teacher play styles. Researchers observed teacher interactions and play, identifying those that were uninvolved to those that were actively engaged with the children. Generally, teachers reported being able to act on their beliefs within their classroom most of the time. Certified teachers were more likely to be involved and use many verbalizations with their students compared to noncertified teachers. Number of years of experience was inversely related to sensitivity but was positively related to level of involvement with children. More experienced teachers appeared less sensitive, but were more involved and had more verbalizations with the children. Overall, teacher beliefs did not predict teacher behaviors. This shows that although preschool teachers

may strive to be more involved and sensitive to their students, they often times do not follow that path. The authors suggest that teachers may be unable to notice that their practices and beliefs are inconsistent because their beliefs are so strongly held. Furthermore, the authors note that there may not be specificity in measuring teacher behavior as a manifestation of their beliefs. They note the difficulty in finding tools to measure such constructs. The findings are relevant to the current study because of the discrepancy in what teachers believe to be the correct way of teaching their students and the way that they actually behave towards their students. If teachers believe they are sensitive to their students with internalizing problems, when in fact they are not, this may cause unintended consequences for those students.

**Teacher ratings.** Linking teachers' beliefs to their practice gives information about their orientation toward approaching students' needs. To further understand how this affects students, it is important to examine how they rate their students' behaviors in their classes. By comparing their perceptions of their students to parents' perceptions and students' self-perceptions, we can understand the accuracy of teachers' understanding of student functioning. This is typically done through the use of rating scales.

Hinshaw, Han, Erhardt, and Huber (1992) sought to compare parent and teacher retrospective ratings to researchers' objective ratings of children's behavior. Teachers completed the Preschool Behavior Questionnaire, which has three factors of children's behavior: "Hostile/Aggressive, Anxious/Fearful, Hyperactive/Distractible." Mothers completed the Child Behavior Checklist that yields two factors: Internalizing and Externalizing. Independent observers coded videos of the children engaging in social behavior into six categories such as: "appropriate behavior," "aggression," or "solitary." Parent ratings of internalizing behaviors for children predicted independent observers' ratings of children's withdrawn behaviors, but teacher

ratings did not. Teacher ratings of externalizing behaviors did correlate with observed children's externalizing behaviors, suggesting that teachers' rating accuracy of behaviors is limited to externalizing ones. This study is important to the current investigation because results indicate that teachers are accurate raters with respect to disruptive behaviors in the classroom but this demonstrates once again that teachers may not be attuned to internalizing behaviors.

Ramasut and Papatheodorou (1994) conducted a study in Greece with early childhood providers. Teachers completed a questionnaire with targeted questions about two children whom they considered to be having behavioral problems. Behavioral problems were classified as conduct (externalizing), emotional (internalizing), and developmental. The authors found that teachers who had been involved in classroom teaching longer (6-15 years) were more tolerant of conduct problems and also were more sensitive to emotional problems compared to early career teachers. This indicates that prior experience helps teachers cope with children's internalizing behaviors that may be hard for younger teachers to spot. Furthermore, experienced teachers may feel more equipped to handle more behavioral troubles within than classroom than inexperienced ones.

### **Teacher Training/PD**

Understanding the preparation that teachers receive to address children's emotional issues is paramount to examining their behavior towards their students' internalizing problems. In the literature search, there were few studies that examined courses that were specifically designed to increase teachers' understanding of developmental psychopathology (i.e., emotional disorders). Due to reports of undertreated youth and unprepared teachers, State, Kern, Starosta, and Mukherjee (2011) explored course content as it related to social, emotional and behavioral issues in pre-service teaching preparation programs. The authors evaluated curriculum and course

requirements for 26 elementary education programs offering certification. The researchers collected and coded course syllabi to examine objectives, assignments, and content to determine amount and type of training related to students' social, emotional, and behavioral problems. Analysis revealed that teachers from these programs received very little training in the area of SEB problems. The total amount of training time pre-teachers received ranged from no time to a maximum of 22h and 11 min. Programs varied within this range of how much time was spent on social, emotional, and behavioral issues. Although this sample is quite small, it raises the concern that certified teachers may not be adequately prepared to tackle social and emotional issues within their classrooms.

Since teachers are not getting adequate preparation during pre-service training, we must examine in-service opportunities for professional development to address social, emotional, and behavioral issues. Studies typically show that in-service training programs increase teachers' emotional sensitivity toward students in their classrooms. The following studies explore effective training techniques for helping teachers feel prepared to address students' socio-emotional issues.

Hindman and Wasik (2011) conducted PD sessions and ongoing mentoring with Head Start teachers. PD centered on building vocabulary and pre-literacy skills amongst preschoolers. Teachers were compared to a group of teachers who had received the typical Head Start training PD sessions. Trainings involved summer sessions before the school year and periodic meetings during the year. The sessions had two foci: ongoing PD for staff and materials to implement in the classroom designed to build students' literacy skills. The first half of the intervention presented theories and information to teachers while the second half provided strategies. For instance, teachers were instructed on how to conduct literacy lessons while facilitating open-

ended questions to their students to generate more responses. To foster vocabulary knowledge, strategies included defining target words within the context of the story and using vocabulary words beyond the lesson into other contexts during the day. Ways to incorporate literacy into more fun activities were encouraged as a means to enhance students' interest. Those who participated in this program demonstrated higher quality instruction than those in the "regular" Head Start PD program. Their students demonstrated increased skills in verbal domains (increased verbal communication in the classroom) and preliteracy skills. Additionally, teachers were more sensitive in their interactions with students, a finding that has relevance for the present study.

Onchwari (2010) surveyed teachers, both those still enrolled in a graduate program and those who graduated. Teachers reported that a course during their studies and a resource guide were helpful tools to have for dealing with children's stress. Children's stress included influences from environmental factors as well as issues within the child. Although not specifically discussed in the article, students manifesting stress may also suffer from internalizing problems. However, teachers felt that more direct instruction would increase their preparedness to deal with their students' stress. This study demonstrates that teachers feel more prepared to handle stress when they have taken courses and have appropriate support.

Other research has shown that additional training increases teachers' sensitivity. These teachers are more likely to be sensitive and see children within their developmental context.

Among preschool teachers, one study found that higher levels of education (i.e., Bachelor's degree) were related to more child-centered beliefs and greater acceptance of individual differences (Fuligni, Howes, Lara-Cinisomo, & Karoly, 2009). This was measured via the Modernity Scale, which examined participants' agreement with various statements adhering to

either a traditional or a child-centered orientation. Traditional statements emphasized conventional roles, “Children should always obey the teacher,” whereas child-centered beliefs emphasized individuality, “Children should be allowed to disagree with their parents.” The findings suggest that additional educational training fosters teachers’ understanding that there is no single approach that works for every child, and that interventions should be tailored to individual needs of the child.

The effect of more specific training plans on teachers’ sensitivity has been examined. The Child Development Associate (CDA) program, accredited by the National Association for the Education of Young Children (NAEYC) provides training in the area of child development within the context of classroom functioning. It can be administered through a degree program or as part of a training workshop. Heisner and Lederberg (2011) found that teachers who attended this program reacted more developmentally appropriately to vignettes about children’s behaviors compared to teachers who had not attended this program. Similar results were reported by Hess, Post, and Flowers (2005) who studied teachers one year after they had received play therapy training. Training was based on a child-centered model of filial therapy, also known as the “kinder training” model. This model was previously used to foster positive relationships between parents and children, but in this study it was applied to teachers. It emphasized empathy, relationship building, understanding the child’s perspective, and acceptance of the child (Post, McAllister, Sheely, Hess, & Flowers, 2004). Teachers who participated in the play therapy training demonstrated more empathy in one-on-one settings compared to teachers who had not participated in the training. Hence, this type of training designed to increase teacher empathy was still effective in doing so one year after implementation.

Another training program was targeted toward increasing teachers' emotional sensitivity toward their students. This program, through emphasizing cultural differences, fostered teachers' sensitivity in recognizing and reacting to different emotions in youngsters (Kaplan, 2003). Training took place weekly and consisted of lectures, group work, homework assignments, and ongoing mentoring support. The first part of the intervention focused on providing psychoeducational information to increase their emotional intelligence such as self-preservation, encouraging teachers to take care of themselves. This portion also focused on increasing teachers' understanding of child socio-emotional development. The next part of the intervention was designed to give teachers strategies to use in the classroom while implementing a socio-emotional curriculum, "The Peaceable Classroom." This curriculum focused on fostering positive interactions between students including applying appropriate positive reinforcement and praise. This included encouraging labeling of emotions within classrooms and solving conflicts. As a result of the training, teachers were more sensitive, as measured through observation and self-report data, to the emotional problems of their students compared to before the intervention.

As previously mentioned, there have not been many programs specifically designed to train teachers about internalizing disorders in youngsters. The Incredible Years Program is quite successful in helping to treat children's externalizing disorders. Herman, Borden, Reinke, and Webster-Stratton (2011) sought to explore the effectiveness of this same program to address internalizing problems. The effects of parent training, child training, and teacher training were all explored. Teacher training involved many hours of PD focused on classroom management, relationship building amongst students, social skills, problem solving strategies, and positive reinforcement. On its own, teacher training was not associated with a reduction in children's internalizing symptoms, although earlier research had demonstrated that this training condition

was effective in reducing children's externalizing symptoms (Webster-Stratton, Reid, & Stoolmiller, 2008). However, in the condition that combined parent training, child training, and teacher training, significant gains were sustained for students who had initially scored higher on internalizing measures. Despite this finding of limited impact from teacher training alone, the results of other studies just reviewed highlight the potential value of working with teachers to increase their sensitivity toward internalizing problems.

Abroad, in areas that have experienced war related trauma, teacher-led interventions have been utilized in an attempt to reduce PTSD symptoms. Berger, Pat-Horenczuk, and Gelkopg (2007) sought to apply a universal intervention to reduce symptoms of PTSD in a community that has sustained many terrorist attacks in Israel. School officials and researchers integrated a cognitive behavioral treatment program into a school curriculum. Researchers randomly assigned classrooms to the waitlist control or the intervention group. The goal was to expose all children in the school (the school consisted of grades two to six) to the program. Researchers administered a questionnaire before and after the study measuring the extent of PTSD symptoms (UCLA PTSD Index for DSM-IV) and anxiety (Screen for Child Anxiety Related Emotional Disorders). The program was classroom-based and was implemented by teachers over eight sessions that utilized psycho-education, coping skills training, and relaxation techniques. Teacher training took place across four sessions for a total of 20 hours. During these meetings, they were instructed on implementation of the manualized intervention. Ongoing supervision during the intervention ensured fidelity. There was an additional psycho-educational parental component. Researchers assessed children immediately following the program and two months after. Younger children showed more improvement than older children. This intervention is unique in that the intervention was integrated into the curriculum. Implementation required

cooperation between administrators, researchers, and teachers. Since it was part of the general curriculum at Tier I, every child, even those whose parents had not granted consent for data collection, was exposed to the intervention.

Wolmer, Hamiel, and Laor (2011) conducted a similar teacher-led study in the same region. The intervention took place after the students' community experienced numerous rocket attacks. The intervention focused not on the trauma itself, but on fostering resilience through stress inoculation training. This focuses on teaching about the physiological stress response and understanding the biological mechanisms of anxious reactions. Coping skills are explicitly taught and rehearsed in stressful situations. Researchers disseminated the intervention by training school counselors for 20 hours who in turn trained teachers for four hours. Ongoing supervision was provided to ensure fidelity. This teacher-led intervention was effective in reducing students' PTSD symptoms compared to those of the control group. This study is one of the first that utilized in-vivo trainers, school counselors, to train teachers and then implement the teacher-led intervention. There are many benefits to using school support staff in this capacity. Firstly, it may have enhanced teacher buy-in since the trainer was already a familiar member of the school staff. Utilizing school-based counselors is more cost effective than providing researchers and experts at each school location. And lastly, school counselors are trained to provide this type of support to teachers.

### **The Role of the School Psychologist in Conducting PD**

School psychologists' training in principles of diagnosis as well as educational and learning theories provides a unique opportunity to convey information to teachers about psychological disorders through consultation or PD. The field of school psychology has embraced a more indirect model of service rather than a direct model (Ysseldyke, Burns, & Rosenfield, 2009).

This shift allows psychologists to move beyond supporting individual students in a 1:1 setting, but allows psychologists to reach more children by working with teachers and other related service personnel with strategies and supports.

For public school districts and private educational institutions, it is cost effective to call upon school psychologists to provide PD and training to staff. According to the National Association of School Psychologists (NASP), “Model for Comprehensive and Integrated School Psychological Services” (2010), providing support to school personnel is an important component of the practice of school psychology. The Model (2010) denotes “Collaboration and Consultation” as a necessary domain that fosters service delivery. This includes school psychologists’ dissemination of information to school personnel including teachers, and providing on-going support if there are issues. Another NASP domain, “School-Wide Practices to Promote Learning,” denotes that school psychologists are responsible for tackling building and systems-wide issues with the goal of ensuring students’ success. School psychologists’ training in educational foundations, systems theory, effective learning techniques, and school-wide issues prepares them to provide PD due to systemic or prevalent issues. Another domain of practice for school psychologists is “Prevention and Responsive Services.” This function requires school psychologists to facilitate prevention programs and techniques within the school. They are responsible for increasing awareness and promoting wellness by implementing prevention programs and collaborating with other personnel. With training in a developmental psychopathology framework focusing on topics like resiliency and risk factors, school psychologists are prepared to create strategies to address mental health issues within the schools. The NASP domain of “Research and Program Evaluation” states that school psychologists have sound preparation in statistical and psychometric properties that allows them to engage in

ongoing research in their practice, and evaluation of current programs in place. The school psychologist therefore can look at prevention and intervention programs and examine their effectiveness, and disseminate this information to other school personnel.

There has been limited research on utilizing school psychologists to foster PD in schools within a consultative framework. Knotek, Babinski, and Rogers (2002) utilized school psychologists to provide support and consultation for new elementary school teachers. The goal was to use the school psychologists who were already within the school setting in a new role to provide support to other staff. Although in this study support was ongoing and formalized, the authors note this is similar to ways in which school psychologists typically provide support to teachers in informal situations. Frisby (1990) noted four tasks that are necessary for a school psychologist to provide effective in-service professional development: “increase understanding/knowledge, change attitudes, develop problem identification skills, develop problem prevention skills, and develop problem correction [intervention] skills” (Frisby, 1990, p. 223).

### **Professional Development Topics**

The current investigation will utilize a PD framework to provide information to early childhood teachers. In addition to the symptoms of depression, anxiety, and PTSD and their long-term effects, which were discussed in previous sections, additional topics are important for educators to understand in order to deal more effectively with young children’s internalizing problems. The following topics were discussed as a framework for PD sessions designed to increase awareness of internalizing problems in young children: ecological approach vs. medical model, prevention model, cultural sensitivity, and Positive Behavioral Supports (PBS). These topics are key in understanding internalizing problems and promoting wellness within early childhood classrooms.

**Ecological approach.** The ecological approach to assessment involves examination of how the systems beyond the individual affect the child (Burns, 2011). Gutkin (2012) presents an argument for the shift from a medical model of service delivery to an ecological approach. In the past, educational services have been provided on an as needed basis, adhering to the medical model of service delivery. The medical model focuses on identifying a problem within a child and finding a solution to remedy that problem, always working within the individual child. This model has been criticized in recent years for focusing exclusively on the child as the source of the problem without taking into account environmental factors. Alternatively, the ecological model switches focus to the contexts (i.e., family, classroom, peer group, culture) in which the child functions. With this model, one looks beyond the child for the causes of atypical behavior. External factors such as family dynamics, school climate, immigration status, and neighborhood conditions all are important influences on the child's functioning. By examining all the external factors present in a child's environment, one can better understand the child's functioning. Examination of these factors determines not only what may be causing a problem displayed by the child, but also how to remediate it.

Within a school setting, according to the medical model, a mental health professional like a school psychologist may conduct an assessment of a child, and derive conclusions solely based on the child's performance. Within an ecological framework, additional data are collected from teachers and parents to better understand the child within his various environments. Without information gathering from a variety of sources, one can miss key information about a child's development, resulting in either false positive or false negative diagnoses (Henderson & Meisels, 1994). An ecological picture of a child is complex and more complete than a medical one. The ecological approach looks at both how the child's contexts impact the child, and also how the

child impacts the systems in which she is a member. Furthermore, how these systems interact with one another also impacts the child's functioning across contexts (Garbarino & Ganzel, 2000). Moreover, while the medical model requires experts to be present to deliver services directly, the ecological model is more flexible and allows more varied interventions such as those detailed in the prevention model below. The ecological model offers early childhood teachers a perspective in which they examine multiple facets and contexts of a child's functioning before making referrals. For instance, knowing that a child is acting withdrawn in the context of parental divorce may help teachers understand how to approach this child, such as reading an age appropriate book. However, without knowing this information, a teacher may just assume that the child is tired or not interested, and miss an opportunity for an easy intervention.

**Prevention model/ Response to Intervention/ Positive Behavior Supports.** In addition to the ecological approach, other models have been developed to shift the focus of problems occurring within the child to looking at problems occurring within the context of the child. These methods require systemic intervention through classroom-wide or school-wide approaches. By providing whole classroom approaches, educators are not responsible for singling out individuals as problems. Instead, there are systemic procedures for addressing needs of all students through a set of interventions. In this approach, expectations are clear to all students, who each have the same opportunity to succeed or receive support when needed (Dunlap, 2009).

The prevention model, Response to Intervention (RTI), and Positive Behavior Supports (PBS) are approaches that address this by focusing on changing the environment to optimize children's outcomes/functioning. Table 2 compares how the three approaches provide

interventions to students in schools. These models are designed to target risk factors with the hope of thwarting serious behavioral problems within educational environments. RTI is an educational application of this model targeting both academic and behavioral functioning within the school setting. PBS specifically targets behavioral problems using behaviorist principles of applied behavior analysis (Dunlap, 2009). PBS focuses on reinforcing appropriate behaviors that serve as replacement behaviors for inappropriate ones.

The prevention model is divided into three tiers: primary or universal prevention (Tier I), secondary or targeted prevention (Tier II), and tertiary prevention (Tier III). Knowing that internalizing problems can have lasting effects, it is important for educators to address problems at the primary and secondary levels of prevention. Primary prevention addresses all members of a group before any problem has developed (Lane, Kalberg, Bruhn, Mahoney, & Driscoll, 2008). An example of primary prevention is a socio-emotional learning curriculum for all students within a preschool. For most students, primary preventions are sufficient to stave off development of a problem. Secondary prevention is a targeted intervention toward students who do develop the early signs of a problem, despite primary prevention efforts. This intervention is typically conducted in small groups for students having trouble in a particular area (Lane et al., 2008). An example of secondary prevention may be reading a developmentally appropriate book about death to a child who lost a grandparent if that child is demonstrating signs of sadness and withdrawal. For most students who have mild difficulties, secondary prevention is enough support to stave off a more serious setback. However, for a child whose problem has worsened despite secondary prevention methods, a more intensive intervention, tertiary prevention, is necessary (Lane et al., 2008). Within the context of mental health issues, tertiary prevention may be referral to a doctor or school psychologist for further evaluation. Understanding this

prevention framework can help teachers understand their role in responding to their students' manifestation of emotional distress before serious symptoms develop from initial risk factors.

Table 2

*Comparison of the Prevention Model, Response to Intervention (RTI), and Positive Behavior Supports (PBS)*

Approaches: Levels:	Prevention Model	Response to Intervention (RTI)	Positive Behavior Supports (PBS)
Level 1: Intervention given to all students	Primary Prevention: Problem has not been developed yet	Tier I: Supports available to all students	Tier I: Behavioral expectations stated for entire population
Level 2: Intervention given to students showing difficulty	Secondary Prevention: Early warning signs of the problem are manifesting	Tier II: Short-term evidence based intervention	Tier II: Interventions geared towards groups of students exhibiting moderate behavior problems
Level 3: Intensive intervention for those who are still not responding	Tertiary Prevention: Problem is fully manifesting and intervention is needed	Tier III: More intensive evidence based intervention	Tier III: Individualized interventions for students

RTI and PBS require data collection to ensure the appropriate intervention for the child (Saeki, et al., 2011). RTI and PBS require evidence-based interventions that have demonstrated effectiveness. Children progress from one tier to the next based on their response to the intervention. If the data show that the student's target behavior is not improving, more intensive interventions are suggested and the student proceeds to the following tier. If the behaviors do improve, the student moves back a tier as the more intensive supports are removed. All three models: prevention, RTI, PBS, focus on providing systematic scaffolding at levels appropriate for students needs. When students no longer need these scaffolds, they can be removed for those individuals, but remain for other students as needed.

**Application of PBS.** In order to monitor effectiveness, PBS programs require qualitative data collection to identify children who are demonstrating improvement (Dunlap, 2009).

Behavior monitoring tools are objective methods to keep track of target behaviors over time

within a classroom. Research findings on behavior monitoring tools within the classroom were discussed within a PBS framework.

Krasch and Carter (2009) explored behavioral monitoring in early childhood settings. They note that ongoing assessment is key to monitoring PBS and ensuring effectiveness of interventions. One method designed to facilitate whole classroom behavior monitoring is to conduct frequency counts at intervals throughout the day. In early childhood settings, the day is typically structured with planned transitions and activities. Using these natural time intervals, a teacher can just look around the room at various times during the day to determine how many students are engaging in target behaviors. Another method is to time particular behaviors to see how long it takes various students, or the whole class, to engage in a particular task. For instance, if a student puts her head down in the classroom once a day, knowing the length of time may provide insight into the degree of the problem.

Another popular type of behavior monitoring tool aligned with PBS is daily report cards that have been used for students exhibiting behavioral problems. Daily report cards are indicators of a child's behavior on a certain day. Chafouleas, Riley-Tillman, and Sassu (2006) asked teachers (via survey) about their use of daily report cards as behavioral monitoring tools. Overall, most participants reported using daily report cards as a behavior monitoring tool to communicate with parents about their children's in class behaviors (i.e., off task behaviors). Teachers also reported using this tool for their own knowledge and record keeping, such as monitoring a child's behavior over time. Teachers not only used this behavior monitoring tool for individual students but also to monitor their entire class. More than half of teachers reported using daily report cards for specific situations, such as a particular problem behavior like a child calling out. One third of the participants reported using the tool regularly to keep track of a range of behaviors. Types of

daily reports included: narrative comments, checklists, and rating scales. This tool was helpful for teachers across behavior types, serving different purposes, and as part of interventions. Providing daily feedback allows teachers to gather information to communicate effectively with parents and other educators. The authors suggest that this can be used as part of a PBS model at multiple tiers to keep track of behaviors and monitor effectiveness of interventions.

Riley-Tillman, Rillman, Chafouleas, and Briesch (2007) present a framework for school psychologists to facilitate implementation of daily report cards under an RTI approach. They note that when using a behavioral monitoring tool, it is necessary to take into account a number of considerations such as the type of problem behavior itself, the reason for collecting data, exploration and feasibility of alternative tools, and rater characteristics. Daily report cards can be designed for implementation in a variety of ways, but they are best utilized when designed specifically for the particular problem behavior at hand.

**Cultural sensitivity.** Culture affects the way we function within a context. Culture can be defined as “an organized set of thoughts, beliefs, norms for interaction and communication, all of which may influence thoughts, behaviors, and perceptions” (Ingraham, p. 100, 2007). Consequently, mental health frameworks in educational contexts must take one’s cultural experience into account. Children from different backgrounds have varied cultural expectations regarding issues such as the value of independence, social norms, and parental involvement. Regarding independence, for example, Gardiner and Kosmitzki (2007) noted that Japanese mothers hold their infants facing them to foster a familial bond, whereas American mothers hold their infants facing the world to foster independence. These differences can impact behavior in the classroom. Children raised in a family and culture with a collectivist orientation may have difficulty in American schools, which expect children to be independent from a young age.

These children may appear withdrawn and nervous, not because they are suffering from an internalizing disorder, but because of the differences in the value of independence. Social norms such as eye contact, personal space, and touching also vary greatly across cultures. Onchwari, Onchwari, and Keengwe (2008) created a hypothetical example in which a young boy from Niger did not respect personal space by standing close and touching peers in his American classroom. Although this is appropriate behavior in his native country, in his current classroom, his teacher punishes his “impulsive” behavior, and suggested he is lacking social skills. This illustration highlights the need for cultural sensitivity in evaluating everyday classroom behavior.

When children are learning English as their second language, at times they may be quiet and appear to be selectively mute for a short time. This “silent period” is normal and typically lasts from three to six months (Rhodes, Ochoa, & Ortiz, 2005). This is a natural process of second language acquisition as the children are adapting to the new linguistic demands of the environment (Elizalde-Utnick, 2007). For these children, diagnosis and treatment for an anxiety disorder would be ineffective and unwarranted, because the behavior is part of a normal linguistic process. Identifying cultural factors such as behavioral problems within the child can have detrimental effects. Teachers need to be aware of cultural differences so that they do not label or refer children inappropriately for evaluation. Additionally, when teachers are aware of this issue, they can help students understand what is expected within the classroom environment and attempt to overcome the cultural mismatch they are experiencing.

The topics of ecological approach vs. medical model, prevention model/ RTI, PBS, and cultural sensitivity are all vital components for use in understanding mental health issues in early childhood. As previously described, these components emphasize understanding a child’s behavior within the context in which she functions, including understanding individual

differences. These topics provide a framework for monitoring behavioral problems and providing support to children. These topics were the tenets of the PD intervention designed to increase teachers' understanding of internalizing disorders in youngsters that will be described below.

### **Dissertation Pilot Study**

The primary purpose of the dissertation pilot study was to investigate the effectiveness of a PD intervention about internalizing problems in early childhood. Another goal was to examine early childhood teachers' feelings of preparedness to recognize and address anxiety and depression in youngsters. Thirteen participants attended two PD sessions that took place on two consecutive evenings in summer 2012 for a total of three hours at a suburban early childhood center in the Northeast.

The study followed a pretest-intervention-posttest design. The pretest and posttest were in the form of a survey that included vignette items.

In the first session, the intervention topic was introduced to participants, including a historical perspective about anxiety and depression in young children that included symptomatology. Participants discussed their experiences with internalizing symptoms in their young students. The prevention model was presented, discussing relevant examples for them to implement in the classroom.

During the second half of the intervention, a behavior-monitoring chart was presented. Participants were instructed on how to complete it. On the chart, teachers could list any behavior that they found concerning, and identify the frequency and times when it occurred. Participants discussed cultural sensitivity and the importance of keeping culture in mind when considering anxiety and depression in young children. They brainstormed questions that they might ask after

initially noticing signs of anxiety or depression in their young students. The ecological approach and the problem solving model were introduced to emphasize the need to address the child within the broader environmental context. The end of the lecture portion provided strategies from the Head Start website to foster social and emotional development. Participants then watched a video about implementing socio-emotional development activities within a typical classroom.

All participants received both a children's booklist that focused on socio-emotional issues and a list of local community resources. At the conclusion, participants completed a survey. Upon completion, participants received a certificate for completion of the workshops and a children's book about tackling internalizing problems.

Results were examined in terms of descriptive data as well as any changes found as a result of the intervention. Descriptive statistics and change scores were utilized because of the small sample. None of the participants reported receiving any previous training on the topic of anxiety and depression in early childhood.

Overall, the intervention increased participants' feelings of preparedness to deal with internalizing symptoms in their students. Before the intervention, participants, on average, felt moderately prepared to deal with children who might be depressed, and moderately to well prepared to deal with children who might be anxious. After the intervention, participants, on average, felt well prepared to deal with children who might be depressed and children who might be anxious. As such, teachers felt better equipped to handle situations where children showed internalizing behaviors.

Each vignette describing a child who manifested internalizing symptoms served as a pretest and posttest for the two groups of participants. Participants gave their opinions about the level of

severity and their feelings of preparedness to handle each situation described. Change scores were calculated for each vignette. There were not any large differences in perceived level of severity and a modest change in perceived preparedness with change scores.

Change scores were also calculated for the preparedness and severity questions for each vignette in the pretest and posttest. Participants varied in their responses before and after the intervention. Change scores indicated increases in both feelings of preparedness for both anxiety and depression. Participants' assessment of their own preparedness to tackle each vignette increased after the intervention.

Qualitative data, such as the open-ended questions for each vignette (e.g., "What would you do next?") were analyzed by identifying the responses mentioned by each participant. Teachers created numerous strategies to handle the situations described in the vignettes. After reviewing all the responses, the PI identified the following strategies:

1. Contact parents
2. Suggest getting help (consultation with doctor or mental health provider)
3. Adjust my own interactions with the child
4. Monitor behavior of child
5. Create a plan for child
6. Do nothing; normal behavior
7. Talk to child
8. Encourage child to interact with kids
9. Adjust my teaching of the whole class

The total frequency of each response strategy was calculated for the pretest and posttest sets of vignettes. Both before and after the sessions, teachers wrote about the importance of encouraging the child to engage with other children within the classroom. However, the frequency with which each code occurred before and after the intervention changed. There were decreases in responses of contacting parents about the problem, changing teachers' own interactions with the child, and creating a plan for the child. There was an increase in responses

in which teachers said they would adjust their teaching of the whole class, such as providing a lesson to the class on adoption. Moreover, after the intervention, twice as many teachers suggested monitoring the behavior of the child and talking to the child about his/her emotions.

After the PD, participants were less likely to want to create a plan immediately to help the child described in the vignettes. Instead, participants wanted to monitor the student's behavior to gather more information to inform their decision about what to do next. Instead of focusing on solving a problem by creating a plan independently, as they had prior to the PD sessions, teachers sought to understand the scope of the problem in more depth before proceeding. Only then would they create a plan through collaboration with administrators, parents, and others using the objective behavioral information provided by the teacher. This strategy directly reflects material covered in the session as participants were introduced to a behavior data collection sheet that allowed them to monitor students' problem behaviors. During a discussion, teachers said this would also be a useful objective tool to use when discussing behavioral concerns with administrators and families.

Before the sessions, many participants said that they would change the way they related to the children, described in the vignettes, in one-on-one interactions. After the sessions, participants instead said they were more willing to change the way they addressed the class as a whole. Teachers had shifted to a more ecological approach, as discussed in the PD, rather than focusing on "fixing" the individual child based only on what they could see.

At the end of the second session, participants informally reported that they enjoyed this session more because they were able to learn strategies they could apply, compared to the first session in which they solely learned information about internalizing disorders. This particular feedback from teachers was part of the rationale to provide two separate interventions and

compare the effectiveness of each approach. The impact of the first session (symptoms and ecological framework) is unknown based on the data. Similar to the first session of the pilot, one type of intervention provided information to participants about internalizing symptoms. The second alternative intervention utilized a more applied approach, like the second session of the pilot.

This pilot demonstrated that PD was effective for teachers and was perceived by them as useful in changing their methods of interacting with children who exhibit internalizing symptoms. The contrast of methods in the pilot study provides a key area of investigation for the current investigation. The first session focused on a more didactic approach. It provided information about internalizing symptoms in youngsters. The second session focused on a more applied approach, discussing tools and strategies. Participants reported their preference for the applied/strategies approach, which helped them feel more prepared to interact with internalizing students. The potential value of providing applied PD is that it not only serves to educate teachers about a problem, but it also provides tools to help tackle the problem. Learning about a problem may evoke feelings of uneasiness in teachers, as they may feel powerless to handle internalizing behaviors in their classrooms. These results illustrate that teachers feel confident to tackle internalizing problems when they are equipped with applicable strategies.

### **Statement of the Problem/Hypotheses**

The literature review above demonstrates the seriousness of early childhood internalizing behaviors. These disorders can impact academic readiness in elementary school, and can lead to the development of internalizing problems later in childhood. Consequently, internalizing problems occurring within young children are a matter of concern that should be addressed. Aside from pediatricians, early childhood education teachers are the first formally trained

professionals interacting with these children, and may be the first line of defense for identifying children who are having internalizing difficulties. Research indicates that teachers are more likely to recognize and address worrisome externalizing behaviors compared to worrisome internalizing behaviors. At this point, not much is known about how sensitive teachers are to young children's internalizing problems, or how well-prepared they feel to address them when they occur.

Within the school setting, school psychologists are poised to provide PD because of their training in psychological and educational theory and developmental psychopathology as they relate to mental health issues. Within schools, they are the experts in the area of internalizing problems in students. The field of school psychology has shifted focus to a more indirect service model approach. Instead of focusing attention on working directly with children, school psychologists work with teachers and other educators through consultation to target more children for intervention. Since school psychologists are already present in the school and are appropriately trained, they are ideal resources for implementation of a PD program for teachers.

The present study hoped to build on the findings from the pilot study, using a larger sample size, two intervention groups, and a waitlist Control group. The study deliberately compared the two different PD approaches that were utilized in the pilot study. The first PD intervention group, Information, received material about internalizing disorders in youngsters including relevant research about these disorders' long-term effects. The second PD intervention group, Strategies, received information about strategies for classroom application including the behavior monitoring tool and Head Start approaches. Both groups completed pretests and posttests similar to those in the pilot. A waitlist Control group completed pretest and posttest questionnaires prior to participating in a session with material similar to the Strategies group. Results were analyzed

across groups to gather information about teachers' perceptions of internalizing problems in youngsters.

The research questions address general descriptive concerns about teachers' preparedness to deal with internalizing behaviors in young children, and a comparison of the effectiveness of two approaches to professional development for teachers regarding these behaviors, specifically:

1. Do early childhood teachers receive training about children's internalizing behaviors? If so, in what context does this training occur?

HO1: It is hypothesized that teachers have received little to no prior training about children's internalizing behaviors in prior educational experiences.

2. Will early childhood teachers' feelings of preparedness to handle young children's internalizing symptoms change from before the interventions to after the interventions?

HO2: It is hypothesized that early childhood teachers' feelings of preparedness to tackle depression, anxiety, and PTSD in their classrooms will increase after the intervention.

3. Will didactic (Information) vs. applied (Strategies) PD sessions affect teachers' self-perceived competence differently?

HO3: It is hypothesized that the different PD sessions will affect teachers' perceived confidence differently. Specifically, it is hypothesized that participants in the applied PD sessions will report a greater increase in perceived confidence.

4. Will teachers' responses to internalizing symptoms on vignettes tend to focus on implementing a specific plan with the child or broader classroom-based changes?

HO4: It is hypothesized that teachers' responses to the vignettes before the intervention will focus on implementing a specific plan with the child, whereas after the intervention, they will focus on broader classroom-based changes.

### **Chapter 3: Methodology**

This chapter describes the methodology of the present study that examined the effectiveness of a PD intervention on early childhood teachers' perceptions of young children's internalizing behaviors. This chapter includes the following sections: participant selection, characteristics of respondents, description of the instruments, procedures, and data analysis.

#### **Participant Selection**

Early childhood teachers, who work with children from birth through age 9, participated in this study. Template recruitment materials are attached to this proposal advertising the intervention as PD sessions (Appendix A). Some participants were solicited through early childhood associations' email listservs. The PI also contacted local school districts and early childhood centers about study participation. A benefit to districts and local early childhood centers included the opportunity for their employees to gain experience in a domain in which they may not have had any training or experience. To ensure confidentiality, the surveys did not solicit any identifiable information.

#### **Characteristics of Respondents**

Ninety-nine participants were included in the data analysis. A total of 127 individuals gave consent for participation, but 28 were excluded. Of those excluded, two participants did not hand in both the pretest and posttest surveys to the PI. One participant completed a posttest but did not hand in the pretest to the PI. Eight participants completed their pretests but did not hand in their posttests. Of the remaining participants, 17 were excluded because they did not fit the inclusion criteria (either were administrators, or did not work within the age parameters of early childhood (birth through age 9). Table 3 shows the breakdown of participants into each treatment group per site. The 99 participants were split between the three groups: Strategies: 31,

Information: 27, Control: 31, across six sites for a total of nine sessions. Some sites (i.e., Suburban District A, Urban Educators, Suburban Center) provided more than one session for data collection. The Strategies group included two sites: one sample from Suburban District A, and two samples of Urban Educators. The Information group included three sites: a sample from Suburban District A, a sample of Urban Educators, and a sample at a Suburban University. The Control group included two samples at a Suburban Early Childhood Center and a sample from Suburban District B. Suburban District A was the only district to provide a sample in more than one treatment group.

Table 3  
*Group Information for Teacher Participants (N = 99)*

Variable	<i>N</i>	<i>%</i>	#	<i>Session Data</i>	
				<i>Range</i>	<i>M (SD)</i>
Group/site					
Group 1 - Strategies	31	31.3	3	4-19	10.3 (7.8)
Suburban District A, Sample 1	19	19.2			
Urban Educators (2 sessions)*	12	12.1			
Group 2 - Information	37	37.4	3	7-21	12.3 (4.2)
Suburban District A, Sample 2	21	21.2			
Urban Educators	7	7.1			
Suburban University	9	9.1			
Group 3 - Control	31	31.3	3	7-15	10.3 (7.6)
Suburban Center (2 sessions)*	16	16.2			
Suburban District B	15	15.2			

*Note.* \*Both of the sites “Urban Educators” and “Suburban Center” had two different samples each. They were conducted with different participants at different times. The rows reflect combined totals from both sessions at the same site.

Table 4 shows the information on participant demographic variables. Most participants were White (78.8%) and have a Master’s degree (50.5%). Two participants endorsed, “Other” for the race/ethnicity variable. One participant described herself as a Guyanese American while another participant endorsed both “Black/African American” and “Hispanic/Hispanic American.” The sample is representative of schoolteachers in greater New York State. According to the Center

for American Progress (2011), 84% of teachers are White, seven percent are Black, six percent are Hispanic, and less than 1 each are Asian/Pacific Islander and Native American. These percentages include elementary and secondary teachers, as there were no data available specific to early childhood teachers serving children birth through age 9. A majority of participants reported personal experiences (either self or others) with depression (56.6%) or anxiety (68.7%). Few participants reported personal experiences with PTSD (12.1%). Ninety-five participants reported their ages, ranging from 20 to 68 (Mean = 39.20, Standard Deviation = 13.515).

Table 4  
*Personal Information for Teacher Participants*

Variable	<i>n</i>	%
Race		
Asian/Asian American	4	4.0
Black/African American	4	4.0
Hispanic/Hispanic American	11	11.1
White/Caucasian	78	78.8
Other	2	2.0
Highest degree		
High school	17	17.2
Associate's degree	6	6.1
Bachelor's degree	24	24.2
Master's degree	50	50.5
Educational specialist	1	1.0
Experiences with internalizing disorders		
Personal experience with depression	56	56.6
Personal experience with anxiety	68	68.7
Personal experience with PTSD	12	12.1

Table 5 shows self-reported employment information about participants. The majority of participants worked at a public school (65.7%). Public schools included two school districts: Suburban District A and Suburban District B. Demographic information about the two public school districts is described in Table 5. Private schools included independent early childhood centers. Participants endorsed "other" when working in schools that are publicly funded but run

independently (i.e., Head Start center). Most participants reported their students' SES to be within the middle-income range. Around one third of participants reported having professional experience working with students with anxiety. Even fewer reported professional experience with students with depression (18.2%) or PTSD (10.1%). Three quarters of the participants reported at least one teaching certification. The number of teaching certifications ranged from zero to five. The mean number of certifications was 1.52. The majority of participants reported certification in general elementary education (57.6%). Almost one third reported special education certification. The majority of participants listed their occupation as "teacher" ( $n = 64$ ). The questionnaire included other occupations which involved spending much of the school day with a child such as teacher's aide ( $n = 10$ ), monitor ( $n = 4$ ), and teacher's assistant ( $n = 17$ ). One administrator endorsed also being teacher. The majority of participants worked with children age two through six. Participants had worked an average of 7.05 years in their current place of employment (range: 2 months-27 years) and an average of 11.13 years in an educational setting (range: 1 year-39 years).

Participants were unable to provide accurate demographic information for their classrooms. As such, Table 6 shows demographic information from the New York State Department of Education to reflect the two school districts that represented two of the six sites. Both sites are suburban districts in the Northeast and were hit hard by Superstorm Sandy. Most students in Suburban District A are White and few students participate in the reduced or free lunch program. Suburban District B is more diverse, as the largest group, Latino/Hispanic, represents 42% of the district. Forty percent of students in this district are eligible for free lunch.

Table 5  
*Employment Information for Teacher Participants*

Variable	<i>n</i>	%
Type of School		
Public	65	65.7
Private	24	24.2
Other	10	10.1
Socioeconomic Status in Classroom		
Low	29	29.3
Middle	61	61.6
High	19	19.2
Experiences with internalizing disorders		
Professional experience with depression	18	18.2
Professional experience with anxiety	34	34.3
Professional experience with PTSD	10	10.1
Teaching certification		
No certification	25	25.3
Elementary education	57	57.6
Special education	30	30.0
AMI or CDA	9	9.1
Literacy	15	15.1
Other	3	3.0
Current job title		
Administrator	1	1.0
Teacher	64	64.6
Teacher's assistant	17	17.2
Teacher's aide	10	10.1
Monitor	4	4.0
Student Teacher	3	3.0
Ages taught		
0-2	15	15.2
2-3	28	28.3
4-5	58	58.6
5-6	39	39.4
Age 7	9	9.1
Age 8	10	10.1
Age 9	8	8.1

Table 6

*Demographic Information for School Districts*

District	%
Suburban District A (2011-2012)	
American Indian/Alaska Native	0%
Black/African American	2%
Hispanic/Latino	12%
Asian or Native Hawaiian/ Pacific Islander	3%
White	82%
Multiracial	1%
Eligible for Free Lunch	9%
Reduced Price Lunch	2%
Suburban District B (2011-2012)	
American Indian/Alaska Native	0%
Black/African American	23%
Hispanic/Latino	41%
Asian or Native Hawaiian/ Pacific Islander	7%
White	29%
Multiracial	1%
Eligible for Free Lunch	40%
Reduced Price Lunch	8%

Since the PI conducted three of the sessions within these school districts, background information about the SEL curriculum of each district is described. Suburban District A uses a packaged district-wide SEL curriculum called the “Ruler” approach. This curriculum is implemented across the district (prekindergarten through 12<sup>th</sup> grade). The curriculum has grade specific activities including “Feeling Words Curriculum,” for each grade level and the “Mood Meter” to address emotions (Reyes, Brackett, Rivers, Elbertson, & Salovey, 2012). Within districts, at the start of implementation, teachers received two days of training about the various strategies and tools to implement. Ongoing support is provided. Reyes and colleagues have shown that optimal implementation and fidelity have positive effects on students’ social and emotional well-being. School District A has not conducted its own study of program impact or teacher fidelity.

Suburban District B creates its own SEL curriculum at the building level. A SEL Committee develops the curriculum throughout the year including weekly themes. According to the school psychologist for prekindergarten and kindergarten classrooms: “There is a bulletin board that displays and guides the theme; classroom activities related to the theme; each class has a walking stick used in hallway which displays an aspect of the theme; kickoff rally with a relevant book read for each theme and SEL books given to each class for each theme.” The committee also collaborates with staff including teachers and aides to elicit implementation feedback. Special area teachers also implement the theme and have used "Bucket-filling" as a reinforcement system in their programs.

### **Instruments**

The pretest survey elicited background information and assessed participants’ feelings of preparedness to deal with internalizing symptoms (i.e., *Very well prepared*, *Well prepared*, *Moderately prepared*, *Poorly prepared*, and *Very Poorly prepared*), as well as their reactions to three vignettes of young children exhibiting anxiety and depression. The pretest survey is attached as Appendix C.

The PI created six vignettes describing behaviors of young children manifesting depression, anxiety, and PTSD in their classrooms (two per disorder) that are attached as Appendix B. Descriptions of vignettes in Luby (2009, 2010) and Paul (2010) served as structural models for the current vignettes. The PI used diagnostic criteria and lists of symptoms for each disorder described: anxiety, depression, PTSD to create vignettes (American Psychological Association, 2000; Minnesota Association for Children's Mental Health, 2010).

A number of factors ensured similarity across the two vignettes per disorder. The PI created two vignettes for each disorder demonstrating similar levels of intensity. Word count between

vignettes was similar with an average word count of 164 words with differences of 16 words or less. Gender was consistent within categories of vignettes (both depression vignettes were girls while all anxiety and PTSD vignettes were boys). Ten graduate students in school psychology read each vignette and identified if the child described suffered from depression, anxiety, or PTSD. They unanimously endorsed the appropriate disorder for each vignette. The vignettes were then broken down symptom by symptom to compare the two vignettes per disorder. The PI created a rating tool in order to establish content validity. Raters compared the symptoms and answered, “How similar in intensity are these two descriptions of symptoms of young children’s behavior?” (i.e., *same degree of intensity*, *somewhat similar degree of intensity*, *different degree of intensity*). The PI emailed the rating tool to school psychology doctoral students to ascertain consistency across symptoms of vignettes. Six raters responded rating half the symptoms (5/10 from list of symptoms) to be “similar” or “somewhat similar” to each other. The PI modified the remaining comparison symptoms based on the feedback that they were less similar to each other. Another group of 10 doctoral school psychology students rated the modified comparisons to ascertain similarity in degree of intensity of each symptom. Results of this submission indicated increased consistency in levels of symptom intensity across vignettes.

The survey asked participants to respond to the vignettes as if the children were in their own classrooms. The survey began by examining the participant’s perceived seriousness of the vignette: “How serious do you think this problem is?” (i.e., *severe*, *moderate*, *mild*). After data collection, to establish a baseline from which to compare the participants’ data, educational psychology students completed the same ratings for each vignette. Results will be discussed in the following chapter.

The PI created four survey forms: A, B, C, D to account for any vignette differences. The four forms varied in the combination of and order of vignettes as some participants read some vignettes before the intervention while others read the same vignettes after the intervention. Each participant read both vignettes for each disorder, reading one before and the other after the intervention.

Additionally, the survey asked if behavior described in each vignette is normal for the age of the student. Participants then ranked possible actions that they might take for the student described, based on level of importance (i.e., *contact parents, adjust my own interactions with the child, monitor behavior of child, encourage child to interact with other kids, discuss this topic with the whole class*). The options listed were the most frequent items written as a free response in the pilot study, such as “adjust my own interactions with the child.” Eleven educational psychology graduate students completed the rank order after data collection to establish an optimal one through five rating. The ordering by these raters did not provide optimal ratings for each vignette, as there were person and vignette effects.

The final question for each vignette asked the participant: “How prepared do you feel to deal with this behavior?” (i.e., *very well prepared, well prepared, moderately prepared, poorly prepared, very poorly prepared*) in dealing with the particular incidents described. The survey concluded with demographic data including age, gender, and years in the field.

At the end of the sessions, participants completed the posttest survey (Attached as Appendix D). This survey once again asked participants to describe their perceived level of preparedness to handle anxiety and depression in their classrooms. They read the three vignettes that they had not completed in their pretest, and endorsed items about their perceptions of the seriousness of the behavior described as well as their own level of preparedness using the same questions as in

the pretest. The questionnaire ended with a section on perceived utility of participation in the current project. Participants answered the following questions: “How useful did you find these sessions?” (i.e., *very useful, moderately useful, not useful*). Participants completed an open-ended question: “How did this PD change the way you will handle children in your classroom who display internalizing behaviors?” The final questions examined perceived effectiveness of the program: “What could have been done to improve your experience during these sessions?” and perceptions of “How will you change your teaching practices within your classroom?”

### **Procedures**

The PI recruited participants to participate in a PD workshop covering the topics of depression, anxiety, and PTSD in early childhood. Interested parties signed up to participate by contacting the PI or their school administrator. After potential participants expressed interest, the PI informed them that this workshop was a part of a research study. Once participants were present, the PI introduced the study and elicited informed consent prior to the intervention. The PI reviewed the participants’ rights and answered any relevant questions prior to beginning the study. On the consent form, participants checked off if they were interested in the PD sessions, and if so, were they willing to give consent for classroom observations, the intervention, and/or an interview after the intervention.

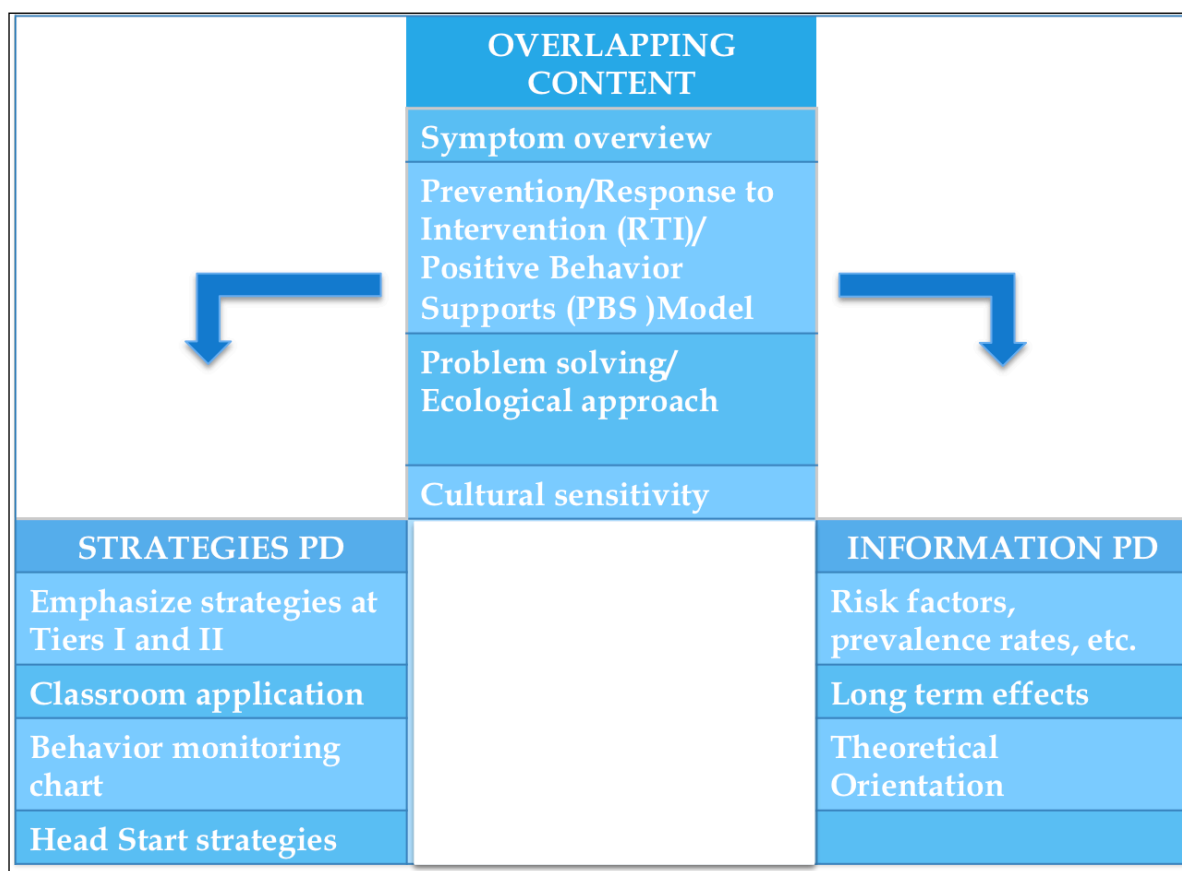
Prior to the intervention, the principal investigator conducted an observation to gather descriptive information about everyday practices related to students’ social emotional functioning within their classrooms.

**Classroom observations.** Before completing the pretest and intervention the PI conducted one classroom observation. Potential participants were encouraged to contact the PI prior to data collection if they were interested in having their classrooms observed. One teacher contacted the

PI and the classroom observation took place during a mutually agreed upon time by the teacher and the PI. Prior to observing, the PI collected informed consent for the observation which took place two weeks before the intervention occurred. The classroom observation took place for 20 minutes during a literacy time block. It included a running record and naturalistic observation describing what is taking place in the classroom.

**PD sessions.** The current investigation was a quasi-experimental design. All participants completed a pretest before the intervention, and a posttest afterwards. The intervention was in the form of PD seminars. There were two treatment groups: Information and Strategies and a wait list Control group. The Control group received PD training after completing the pretest and posttest surveys. The PI conducted nine sessions using random assignment for the first two sessions (of data collection). Participants in the first two sessions were assigned to the Strategies group. Due to extenuating circumstances, the PI was unable to conduct a complete intervention and as a result assigned the following three sessions to the Control group. As a result, the three remaining sessions were assigned to the Information group. The investigation took place at the participants' place of employment or at a nearby university.

In both intervention groups, participants introduced themselves, stating their first name and their work setting. Then the intervention began. Figure 1 presents a summary comparing the topics presented between the two interventions including overlapping content. A more detailed description of each content area follows. PowerPoint printouts of presentations to both groups are attached as Appendix F and G respectively.



*Figure 1: Content of PD Sessions by Intervention Group*

In the Information group, the PD session provided a general overview of internalizing behaviors in young children, as well as cultural sensitivity. The session began with a historical perspective on depression, anxiety, and PTSD in young children and the types of symptoms characteristic of these disorders. Then the PI led a discussion about those symptoms that participants have seen in their young students over their years of teaching. The lecture included current prevalence rates, risk factors, comorbidities, and long-term effects of these disorders on children's functioning. Participants viewed visual charts and models explaining both the prevention/RTI model and problem solving/ecological approaches. The group then considered cultural sensitivity and the importance of keeping culture in mind when considering anxiety and depression in young children. The discussion centered on cultural norms and second language

acquisition. The PI offered a symptom continuum from less severe behaviors to more severe behaviors including the types of children identified by their teachers as having difficulties such as withdrawal and social reticence described in Chapter II (Fantuzzo, et al., 2007; Bulotsky-Shearer, & Fantuzzo, 2012; Bulotsky-Shearer, Fantuzzo, & McDermott, 2010; Denham, et al., 2012).

In the Strategies group, the PI briefly introduced the topic of internalizing behaviors in young children, including a brief description of symptoms. The problem solving/ecological approach and prevention/RTI model served as a prototype for a discussion of relevant examples for teachers to implement in the classroom within each tier. Through this model, teachers can help children who are beginning to show signs of anxiety or depression before a fully developed disorder is present. Participants examined a behavior monitoring chart as a strategy. The PI created this chart successfully in the pilot study described earlier. The PI instructed them how to complete it, by identifying any behavior that they find concerning and completing a chart identifying how often it occurs during the day and in what contexts (e.g., during circle time, after lunchtime). This chart was consistent with the prevention/RTI approach as it helps teachers quantify a problem behavior, which can help target specific interventions. Additionally, as this tool measures behaviors, it could be used to determine the effectiveness of certain interventions in reducing problem behavior. The next topic was cultural sensitivity (the same material from the Information group). Participants brainstormed questions that they would ask after initially noticing signs of anxiety, depression, or PTSD in their young students. The lecture portion concluded with a discussion of strategies from Head Start Domain 6: Social and Emotional Development. These suggestions encouraged participants to foster the social and emotional development of the entire class at a primary prevention (Tier I) approach. The presentation

focused on the following elements of the domain: Self-Concept, Self-Control, Cooperation, Social Relationships, and Knowledge of Families and Communities (Domain 6, 2003). Specific strategies included fostering problem solving skills and easing transitions for whole classroom implementation including both children who are struggling and children who are not.

Upon completion of the survey, participants in all groups (Information, Strategies, and Control) received a list of books that focus on issues related to anxiety, depression, PTSD and other socio-emotional issues. Participants also obtained a list of local community resources to keep on hand for when serious social or emotional issues emerge in their classrooms.

**Teacher Interviews.** At approximately two to four weeks following the intervention, research assistants conducted phone interviews for 10% of participants (three teachers) in each of the two intervention groups (Attached as Appendix E). Participants who granted consent for an additional follow up interview at the start of the investigation were contacted via email after the intervention to schedule an interview. Two research assistants (school psychology doctoral students) conducted the interviews over the phone. The research assistants took notes to document the interviews. Interviews discussed teachers' prior experiences working with children who have manifested internalizing disorders and asked for a specific example. The research assistant also asked the participant about barriers to address mental health issues within their school building as well as the usefulness of supports that are already in place. Participants also responded to prompts about if they had changed their approaches in the classroom-based on the PD sessions as well as identifying areas in which they would like additional training. The interview concluded with a discussion of the participants' posttest responses.

## **Data Analysis**

The PI used Descriptive statistics for analyzing the demographic information gathered such as: personal information, type of students (age, socioeconomic status, type of school), participants' level of schooling, years and type of experience, and prior training for working with children with internalizing symptoms. Additional analysis will be described per research question.

**Do early childhood teachers receive training about children's internalizing behaviors? If so, in what context does this training occur?** The PI used descriptive statistics to examine teachers' prior training on issues related to internalizing disorders in general, and specifically, Superstorm Sandy.

**Will early childhood teachers' feelings of preparedness to handle young children's internalizing symptoms change from before the interventions to after the interventions?** The PI compared participants' feelings of preparedness scores by treatment group affiliation. The PI conducted paired sample *t*-tests to calculate differences in feelings of preparedness before and after the intervention for each diagnosis (depression, anxiety, and PTSD)

**Will didactic (Information) vs. applied (Strategies) PD sessions affect teachers' self-perceived competence differently?** A 2 (time: pretest and posttest) x 3 (treatment group: Strategies, Information, Control) repeated measures analysis of variance (ANOVA) was used to explore the effectiveness of the intervention on participants' feelings of preparedness to tackle depression, anxiety, and PTSD.

**Will teachers' responses to internalizing symptoms on vignettes tend to focus on implementing a specific plan with the child or broader classroom-based changes?** The PI also used paired sample *t*-tests to calculate differences in participants' responses to what actions

they would take next after reading the vignette. This included a rank ordering of the actions (i.e., *contact parents, adjust my own interactions with the child, monitor behavior of child, encourage child to interact with other kids, discuss this topic with the whole class*). The PI identified two choices aligned with an ecological approach for coding: “monitor behavior of child,” and “discuss the topic with the whole class.” The PI coded response patterns (zero to three) to each vignette for degree of agreement with the ecological approach addressed in the PD interventions. Zero points denoted that the participant did not endorse either ecological approach in their top two actions. One point represented endorsing either item as a second choice. Two points denoted endorsing either item as a first choice of action. Three points represented both ecological approaches listed in the top two choices of action. The PI compared changes in points by disorder (depression, anxiety, PTSD), per intervention group at pretest to posttest.

**Qualitative data.** The PI and research assistants coded free response data for qualitative analysis. After each vignette, participants explained why they believed the described behavior to be typical or not typical. The PI generated a list of 20 participant responses. These responses clustered around five categories: Diagnostic Label (i.e., “PTSD”), Stressors/Environment (i.e., “traumatic event”), Duration/Frequency/Development (i.e., “it depends on how long this behavior has been occurring.”), Personality/Self Esteem (i.e., “she’s shy”), and Behaviors (i.e., “*Pricilla had sleeping problems, problems with socialization, She had drastic and rapid changes in her behavior*”). The PI coded each response with this rubric and used multiple codes if participants used more than one response in their explanations. Inter-rater reliability was established by comparing the research assistants’ coding of 10% of the data to the PI’s coding.

Participants responded to prompts about their reactions to the cases described in the vignettes. In addition to the rank order data, some participants explained “what else” they would

do in response to this situation. The PI generated a list of 33 responses. These responses clustered around six categories: Whole Class Strategy (i.e., “create a lesson on loss”), Parent Strategy (i.e., “talk to parents about outside resources”), Focus on Child/Behavior (i.e., “I would give her a journal so she could write or draw her feelings”), Consultation (i.e., “talk with the school psychologist about other strategies”), Referral (i.e., “have her meet with a psychologist/social worker”), Independent Research (i.e., “find information about how the child can work on relieving his own anxiety”). The PI coded each response with this rubric and used multiple codes if participants used more than one response in their explanation. Inter-rater reliability was established by comparing the research assistants’ coding of 10% of the data to the PI’s coding.

The PI conducted one observation that will be described anecdotally in the following chapter. Research assistants conducted five interviews. The PI and research assistants examined the running record of each interview to identify perceived barriers and supports to proving effective strategies for students.

## **Chapter 4: Results**

The purpose of the present study was to investigate the effectiveness of two PD approaches with early childhood teachers concerning children's manifestation of internalizing behavior problems. The PI compared participants' pretest and posttest surveys to ascertain the effectiveness of the PD on responses. This chapter provides the results of this study including the following sections: missing data, pretest results, posttest results, research questions and hypotheses, qualitative data, and reflection data.

### **Missing data**

Some participants omitted certain questions when completing the questionnaire. It is unclear if participants intended to omit the data or if it was in error. The PI coded missing data as "8888" for the purpose of analysis. One participant completed a posttest and no pretest. Eight participants completed pretests and no posttest. There were no significant demographic differences when comparing participants who completed the posttest and those who did not. Due to examiner error, two participants completed the wrong form at posttest (i.e., completed Form B pretest and Form C posttest). Since the vignettes in these two surveys were misaligned, comparisons on specific vignette items could not be made. As a result, these two participants were omitted for the vignette comparison analysis, but were included for the remaining analyses.

### **Pretest results**

The PI analyzed pretest data to ascertain baseline information, which is discussed in the subsections that follow. The first section explores the relationship between teachers' personal characteristics and their perceptions of their preparedness to deal with anxiety, depression, or PTSD. Participants' responses to vignettes were analyzed in terms of their self-perceived

preparedness, ratings of seriousness and typicality of behavior, and ranking next steps to help the child.

**Personal characteristics: predictions of preparedness.** The richness of background information provided ample responses to run correlations to determine if any personal characteristics predicted general perceived preparedness in terms of anxiety, depression, or PTSD. Personal characteristics included personal or professional experiences with the disorder, number and types of teacher certifications, and occupation. Correlations compared these characteristics to perceived preparedness and no significant predictors were identified. Due to the restriction of range of responses there was not much variance to explain. The PI could not identify any patterns of predictors.

**Group effects.** The PI tested for preexisting group differences on the question of preparedness for each of the three disorders (depression, anxiety, and PTSD) at pretest. No group effect emerged using MANOVA for the 3 pretest scores on group, as tested for group differences (Wilks,  $\Lambda = .971$ ,  $F(6, 108)$ ,  $df = 0.465$ ,  $p = 0.834$ ). The conclusion appears that groups did not appear to be different at pretest for their reported preparedness for the three disorders.

**Establishing vignette severity.** After data collection, to establish a baseline from which to compare the participants' data, educational psychology students completed the same ratings for each vignette. The PI created all six vignettes to be of "moderate" seriousness. Fifteen graduate students provided their own perceived seriousness ratings for each vignette. Analysis of scores found the perceived seriousness to vary among vignettes. Due to person and vignette effects, there were inconsistent ratings between both the two depression vignettes (Carla and Pricilla) and the two anxiety vignettes (James and Pete). Raters scored Carla's symptoms as more serious

than Pricilla's, while James' symptoms were rated less serious than Pete's. Table 7 demonstrates the breakdown of vignettes and their average perceived seriousness rating (1 = *mild*, 2 = *moderate*, 3 = *severe*). PTSD vignettes (Robert and Tyson) were consistently rated "severe" across raters showing no person or vignette effects.

Table 7:  
*Seriousness Scores for Vignettes by Raters*

Vignette	<i>M</i>	<i>SD</i>	Classification
Depression			
Carla	2.35	0.49	Moderate
Pricilla	1.88	0.60	Moderate
Anxiety			
James	1.53	0.62	Mild
Pete	2.14	0.72	Moderate
PTSD			
Robert	2.59	0.51	Severe
Tyson	2.71	0.47	Severe

**Participant ratings of vignette preparedness and severity.** Pretest data indicated that participants responded similarly to vignettes across all treatment groups at pretest. Particular areas of interest included participants' feelings of preparedness for each disorder, and about each vignette. This included perceived preparedness in addition to typicality and seriousness of behaviors. Teachers responded to general questions about their feelings of preparedness for anxiety, depression, and PTSD. Then they were again asked specifically after each vignette to report their feelings of preparedness for the specific behaviors described in the vignettes. Table 8 is organized by disorder, combining participants' responses to the broader questions followed by their self-assessment of preparedness for the vignettes. Due to counterbalancing, half of the participants responded to each depression vignette at pretest, while responding to the other at posttest. Therefore, a new variable was created, "Depression vignette: Preparedness for either Carla or Pricilla" to combine participants' responses to either vignette at pretest into one mean.

This procedure was replicated for the anxiety and PTSD vignettes. The mean score per item was rounded to the highest whole number according to the following scales: preparedness: (5=*Very well prepared*, 4=*Well prepared*, 3=*Moderately prepared*, 2=*Poorly prepared*, 1=*Very Poorly*). Means for preparedness on disorders and specific vignettes ranged from “Poorly prepared” to “Moderately prepared.” On item #1 for preparedness, the mean response of 2.89 was rounded up to 3, so that responses to “How prepared do you feel to deal with children who may be depressed?” were classified as “Moderately prepared.” On average, participants endorsed “poorly prepared” to tackle PTSD in the classroom, but endorsed “Moderately prepared” in response to vignettes describing children exhibiting symptoms of PTSD.

Table 8:

*Descriptive Statistics for Teacher Ratings of their Feelings of Preparedness at Pretest*

	<i>M</i>	<i>SD</i>	Classification
How prepared do you feel to deal with children who may be depressed?	2.89	.69	Moderately prepared
Depression vignette: Preparedness for either Carla OR Pricilla.	3.10	.70	Moderately prepared
How prepared do you feel to deal with Carla’s behavior?	2.96	.68	Moderately prepared
How prepared do you feel to deal with Pricilla’s behavior?	3.2	.72	Moderately prepared
How prepared do you feel to deal with children who may be anxious?	3.08	.71	Moderately prepared
Anxiety vignette: Preparedness for either James OR Pete.	3.36	.74	Moderately prepared
How prepared do you feel to deal with James’ behavior?	3.35	.67	Moderately prepared
How prepared do you feel to deal with Pete’s behavior?	3.35	.81	Moderately prepared
How prepared do you feel to deal with children who may be suffering from PTSD?	2.35	.64	Poorly prepared
PTSD Vignette: Preparedness for either Robert OR Tyson.	2.83	.64	Moderately prepared
How prepared do you feel to deal with Robert’s behavior?	3.24	.74	Moderately prepared
How prepared do you feel to deal with Tyson’s behavior?	2.77	.86	Moderately prepared

Table 9 describes participants' mean scores in rating seriousness of vignettes' behaviors ranging in intensity from mild to severe (3 = *Severe*, 2 = *Moderate*, 1 = *Mild*). Similar to the procedure described above, means were rounded to the whole number for the purpose of classification. For instance, the mean seriousness ratings for Pricilla was 2.041 that was rounded down to 2, so that the response to "How serious do you view this behavior" was classified as "moderate." Participants on average rated vignettes describing depressed and anxious youngsters as "moderate" and those with symptoms of PTSD as "severe."

Table 9:  
*Descriptive Statistics for Teacher Ratings of Vignette Severity at Pretest*

<u>Vignette</u>	<u>M</u>	<u>SD</u>	<u>Classification</u>
Depression			
Carla	2.47	.66	Moderate
Pricilla	2.04	.64	Moderate
Anxiety			
James	1.89	.56	Moderate
Pete	1.83	.75	Moderate
PTSD			
Robert	2.70	.46	Severe
Tyson	2.85	.37	Severe

**Participants' ratings of vignette typicality.** Participants rated each vignette as typical or atypical for young children. Table 10 describes these responses per vignette. Due to counterbalancing, half of the participants responded to each depression vignette at pretest, while responding to the other at posttest. Therefore, a new variable was created, "Depression vignette: Carla or Pricilla" to combine participants' responses to either vignettes' typicality at pretest into one mean. This procedure was replicated for the anxiety and PTSD vignettes. For all three disorders, responses were similar for both vignettes. In response to the two depression vignettes, more than half of the participants to each of the depression and PTSD vignettes described the behavior as atypical for the age group. On the other hand, more than half of the respondents to each of the anxiety vignettes described the behavior as typical for the age group.

Table 10:  
*Frequency of Teacher Ratings of Vignette Behavior as Typical or Atypical at Pretest*

Item	Typical (%)	Atypical (%)
Depression vignettes (Carla OR Pricilla)	40 (43.0%)	53(57.0%)
Is this behavior typical for a child Carla's age?	20 (42.6%)	27 (57.4%)
Is this behavior typical for a child Pricilla's age?	20 (43.5%)	26 (56.5%)
Anxiety vignettes (James OR Pete)	61 (62.9%)	36(37.1%)
Is this behavior typical for a child James' age?	31 (60.8%)	20 (39.2%)
Is this behavior typical for a child Pete's age?	30 (65.2%)	16 (34.8%)
PTSD vignettes (Robert OR Tyson)	37 (38.1%)	60 (61.9%)
Is this behavior typical for a child Robert's age?	29 (40.8%)	42 (59.2%)
Is this behavior typical for a child Tyson's age?	8 (30.8%)	18 (69.2%)

Participants had the option to provide free responses to explain why they believed the behavior described in the vignettes was typical or atypical. Not all participants provided responses and each participant may have provided multiple explanations. The PI coded these free responses into five categories: "Diagnostic Label, Environmental Stressor, Duration/Development, Personality, and Behavior." At Pretest, the PI coded 16.6% of responses as "Diagnostic Label" which indicated that the participant used one of the following diagnostic terms: anxiety, depression, or PTSD. The most frequent code was "Environmental Stressor" (38.7% of responses). This indicated that the participant explained their reasoning as something occurring within the environment, such as one response: "he experienced a trauma." The PI coded 16.6% of responses as "Duration/Development," which meant that a child had not yet reached a developmental milestone or that the behavior would be a problem if it had been occurring for a longer duration. An example of a response in this category was: "would usually improve with time/development." The least frequent code was "Personality," (9.8% of responses), which indicated that the participant explained the behavior as a temperamental characteristic such as: "Some children are just shy." The PI coded 18.3% of responses as "Behavior" when the participants described the behavior as typical or atypical because of

specific behaviors children are manifesting: “Her behavior has taken a complete turn from outgoing to withdrawn.”

**Next steps: additional responses to vignettes.** Participants had the option to provide free responses to explain what other steps they might take in response to the child described in the vignette. Not all participants provided responses and some participants may have provided multiple explanations. The PI coded these free responses into five categories: “Whole class strategy, Parent specific strategy, Focus on child, Consultation, Referral, and My own research.” Few participants provided “Whole class strategy” responses (3.9%) that described an approach that would serve the entire class. One response in this category was: “I would find a topic that the student thoroughly enjoys and incorporate it into the classroom.” Thirteen percent of participants provided a “Parent specific strategy” which included communication with parents like “help parents seek outside resources.” The largest number of responses (42.5%) fell under the “Focus on child” code, which included specific individualized attention or interventions with the child such as: “Try to give her more of my attention by asking how she was, telling her how good it is to see her, complementing her.” Participants reported contacting mental health providers (i.e., school psychologist or social worker) for “Consultation” (23.7%) or “Referral” (11.8%). Some participants (4.8%) indicated that they would conduct their own research (“My own research”) to learn more about the child’s problems and/or seek out strategies.

### **Participants’ Consistency across Pretest and Posttest**

The PI measured consistency across participants’ responses to vignettes by calculating Cronbach’s alpha for three items per vignette that the participant completed: perceived preparedness, perceived severity, perceived typicality. This was calculated both for pretest and

posttest scores. Since the four forms (A, B, C, and D) utilized different combinations of the vignettes for pretest and posttest, the PI created new variables for this analysis.

In order to examine participants' preparedness for the vignettes, the PI combined responses into three variables each for pretest (Dep\_Vin\_Pre, Anx\_Vin\_Pre, PTSD\_Vin\_Pre) and posttest (Dep\_Vin\_Post, Anx\_Vin\_Post, PTSD\_Vin\_Post) from the original six vignettes for depression (Vignettes: Carla or Pricilla), anxiety (Vignettes: James or Pete), or PTSD (Vignettes: Robert and Tyson). The PI found the reliability statistic to be strong (Cronbach Alpha = .778) when comparing perceived preparedness for each participant across all vignettes for the pretest across groups. The reliability statistic varied between the groups ranging from Control (.672), Information (.667), to Strategies (.899). These statistics demonstrated that participants responded to the vignettes consistently. The PI found the reliability statistic to be strong (Cronbach Alpha = .849) when comparing perceived preparedness for each participant across all vignettes for the posttest across groups.

Following a similar procedure, the PI created three variables each for pretest (Dep\_Sev\_Pre, Anx\_Sev\_Pre, PTSD\_Sev\_Pre) and posttest (Dep\_Sev\_Post, Anx\_Sev\_Post, PTSD\_Sev\_Post) from the original six vignettes for depression (Vignettes: Carla or Pricilla), anxiety (Vignettes: James or Pete), or PTSD (Vignettes: Robert and Tyson). The PI found the reliability statistic to be weak for pretest (Cronbach Alpha = .361) and posttest (Cronbach Alpha = .393) when comparing perceived seriousness for each participant across vignettes.

In order to examine participants' perceived typicality (typical or not typical) for each vignette, the PI followed a similar procedure creating three variables each for pretest (Dep\_Typical\_Pre, Anx\_Typical\_Pre, PTSD\_Typical\_Pre) and posttest (Dep\_Typical\_Post, Anx\_Typical\_Post, PTSD\_Typical\_Post) from the original six vignettes for depression (Vignettes: Carla or

Pricilla), anxiety (Vignettes: James or Pete), or PTSD (Vignettes: Robert and Tyson). The PI found the reliability statistic to be weak for pretest (Cronbach Alpha = .382) and stronger but still not moderate at posttest (Cronbach Alpha = .671) when comparing perceived typicality for each participant across vignettes.

### **Posttest Results**

The analysis of posttest data and its comparison to pretest baseline information, is discussed in the subsections that follow. The first section explores participants' responses to vignettes that were analyzed in terms of their self-perceived preparedness, ratings of seriousness and typicality of behavior, and ranking next steps to help the child. The research questions are then systematically addressed.

**Participant ratings of vignette preparedness and severity.** After completing the intervention, participants completed the posttest survey. Participants in the control group completed the posttest immediately following the pretest. Posttest data indicated that participants responded differently across groups. Particular areas of interest included participants' feelings of preparedness for each disorder, and perceptions about each vignette. This included perceived preparedness in addition to typicality and seriousness of behaviors. The PI used descriptive statistics to identify key findings highlighted in Tables 11 through 14. Table 11 presents participants' feelings of preparedness broken down by group, including means and classification for each item detailed in Table 8 (pretest scores). Results were organized by disorder, combining participants' responses to the broader questions about preparedness for each disorder followed by their self-assessment of preparedness for the vignettes. As with the pretest, "classification" refers to categorization of the means based on the answer choices. The mean score per item was rounded to the highest whole number according to the same scales used in the

pretest. Means for preparedness on disorders and specific vignettes ranged from “moderately prepared” to “well prepared.” Table 12 describes participants’ mean scores in rating seriousness of vignettes’ behaviors broken down by intervention group. Participants’ perceptions of seriousness of vignettes ranged from “moderate” to “severe.” The same classification procedures were followed as described for Table 9. There were no group differences found in the classification of severity. Group differences in participants’ preparedness will be discussed further under the Research Questions heading.

Table 11

*Descriptive Statistics for Teacher Ratings of their Feelings of Preparedness at Posttest Split by Intervention Group*

Prompt	Strategies Group		Information Group		Control Group	
	<i>M (SD)</i>	Classification	<i>M (SD)</i>	Classification	<i>M (SD)</i>	Classification
How prepared do you feel to deal with children who may be depressed?	3.48 (.63)	Well Prepared	3.54 (.60)	Well Prepared	2.77 (.61)	Moderately Prepared
Depression vignette: Preparedness for either Carla OR Pricilla.	3.40 (.56)	Moderately Prepared	3.72 (.77)	Well Prepared	3.03 (.77)	Moderately Prepared
How prepared do you feel to deal with Carla's behavior?	3.44 (.51)	Moderately Prepared	3.72 (.59)	Moderately Prepared	3.00 (.59)	Moderately Prepared
How prepared do you feel to deal with Pricilla's behavior?	3.36 (.63)	Moderately Prepared	3.69 (.95)	Well Prepared	3.06 (.95)	Moderately Prepared
How prepared do you feel to deal with children who may be anxious?	3.59 (.68)	Well Prepared	3.70 (.62)	Well Prepared	2.90 (.62)	Moderately Prepared
Anxiety vignette: Preparedness for either James OR Pete.	3.52 (.68)	Well Prepared	3.70 (.70)	Well Prepared	3.43 (.70)	Moderately Prepared
How prepared do you feel to deal with James' behavior?	3.50 (.65)	Well Prepared	3.63 (.72)	Well Prepared	3.36 (.72)	Moderately Prepared
How prepared do you feel to deal with Pete's behavior?	3.53 (.72)	Well Prepared	3.73 (.70)	Well Prepared	3.47 (.70)	Moderately Prepared
How prepared do you feel to deal with children who may be suffering from PTSD?	3.38 (.68)	Moderately Prepared	3.38 (.55)	Moderately Prepared	2.43 (.55)	Poorly Prepared
PTSD Vignette: Preparedness for either Robert OR Tyson.	3.41 (.62)	Moderately Prepared	3.32 (.59)	Moderately Prepared	2.86 (.59)	Moderately Prepared
How prepared do you feel to deal with Robert's behavior?	3.75 (.76)	Well Prepared	3.18 (.60)	Moderately Prepared	2.83 (.60)	Moderately Prepared
How prepared do you feel to deal with Tyson's behavior?	3.31 (.57)	Moderately Prepared	3.38 (.58)	Moderately Prepared	2.87 (.58)	Moderately Prepared

Table 12:

*Descriptive Statistics for Teacher Ratings of Vignette Severity at Posttest Split by Intervention Group*

Prompt	Strategies Group		Information Group		Control Group	
	<i>M (SD)</i>	<i>Classification</i>	<i>M (SD)</i>	<i>Classification</i>	<i>Mean (SD)</i>	<i>Classification</i>
Depression						
How serious do you think Carla's problem is?	2.41 (.62)	Moderate	2.06 (.83)	Moderate	2.23 (.60)	Moderate
How serious do you think Pricilla's problem is?	1.86 (.66)	Moderate	1.70 (.77)	Moderate	1.76 (.66)	Moderate
Anxiety						
How serious do you think James' problem is?	2.46 (.52)	Severe	1.88 (.72)	Moderate	1.86 (.66)	Moderate
How serious do you think Pete's problem is?	1.88 (.60)	Moderate	2.12 (.49)	Moderate	1.67 (.48)	Moderate
PTSD						
How serious do you think Robert's problem is?	2.71 (.49)	Severe	2.82 (.40)	Severe	2.57 (.53)	Severe
How serious do you think Tyson's problem is?	2.78 (.42)	Severe	2.63 (.58)	Severe	2.58 (.50)	Severe

Table 13:

*Frequency of Teacher Ratings of Vignette Behavior as Typical or Atypical at Posttest Split by Intervention Group*

Variable	Strategies Group		Information Group		Control Group	
	<i>Typical (%)</i>	<i>Atypical (%)</i>	<i>Typical (%)</i>	<i>Atypical (%)</i>	<i>Typical (%)</i>	<i>Atypical (%)</i>
Depression	17(54.8)	12(41.4)	16(48.4)	17(51.2)	15(51.7)	14(48.3)
Is this behavior typical for a child Carla's age?	7 (46.7)	8(53.3)	11(64.7)	6 (35.3)	6 (46.2)	7 (53.8)
Is this behavior typical for a child Pricilla's age?	10(71.4)	4(28.6)	5(31.3)	11(68.8)	9(56.3)	7(43.8)
Anxiety	16(53.3)	14(46.7)	15(45.5)	18(54.5)	17 (63.0)	10(37.0)
Is this behavior typical for a child James' age?	8(61.5)	5(38.5)	7(43.8)	9(56.3)	8(61.5)	5(38.5)
Is this behavior typical for a child Pete's age?	8(47.1)	9(52.9)	8(47.1)	9(52.9)	9(64.3)	5(35.7)
PTSD	13(44.8)	16(55.2)	9 (27.3)	24(72.7)	16(57.1)	12(42.9)
Is this behavior typical for a child Robert's age?	4(57.1)	3(42.9)	5(45.5)	6(54.5)	2(28.6)	5(71.4)
Is this behavior typical for a child Tyson's age?	9(40.9)	13(59.1)	4(17.4)	19(82.6)	10(45.5)	12(54.5)

Table 14:

*Frequency of Posttest Coding of Free Responses for Typicality Explanations*

Code	Strategies Group	Information Group	Control Group
Diagnostic Label	31.6%	46.7%	18.8%
Environmental Stressor	52.6%	11.1%	51.1%
Duration/ Development	0%	28.9%	7.8%
Personality	5.3%	6.7%	7.8%
Behaviors	10.5%	8.9%	12.5%

**Vignette typicality.** Table 13 describes participants' answers to questions about the typicality of behavior described in each vignette broken down by intervention group. Since four forms were split across the three groups, the numbers of participants who saw particular vignettes within each group was rather small. Therefore, a new variable was created for each disorder, to combine participants' typicality responses to either vignette at pretest into one. These new variables were used to compare group means. There was no clear pattern of rating typicality in vignettes depicting depressed students, as participants across all three groups were evenly split in characterizing behaviors as typical or atypical. For the anxious children, participants in the Strategies and Information groups were split fairly evenly between typical and atypical ratings. However, 63% of the Control group tended to rate these same behaviors as atypical. In response to the PTSD vignettes, participants in the Strategies and Control groups were split evenly in rating these behaviors as typical or atypical. Seventy-two percent of the Information group rated these same behaviors as atypical. These results indicate different response patterns by intervention group and disorder.

The PI used the same coding system as in the pretest ("Diagnostic Label, Environmental Stressor, Duration/Development, Personality, and Behavior") for participants' responses to explain their reasoning behind their classification of vignettes' behavior as typical or atypical. Table 14 shows the frequency of each response code per intervention group. Participants in the Information group generated more "Diagnostic Label" codes (46.7%) than the other two groups (Strategies: 31.6%; Control: 18.8%). Participants in the Information group generated less "Environmental Stressor" codes (11.1%) than the other two groups (Strategies: 52.6%; Control: 51.1%). Participants in the Information group generated more "Duration/Development" responses (28.9%) than the other two groups: (Strategies: 0%; Control: 7.8%).

**Next steps: additional responses to vignettes.** At posttest, the PI used the same coding system as in the pretest for participants' explanation for next steps they would take in response to the vignettes. Table 15 shows the frequency of each response code per intervention group. Participants in the Strategies group provided more "Parent specific strategies" (18.2%) compared to the Information (7.1%) and Control (3.7%) groups. Participants in all three groups provided more "Focus on child" explanations than any other responses (Strategies: 44.7%; Information: 42.9%; Control: 54.9%). Participants in the Information group provided more responses (16.7%) for the "My own research" category compared to the Strategies (0%) and Control (1.2%) groups.

Table 15:

*Frequency of Response Types by Teachers for Next Steps at Posttest*

Code	Strategies Group	Information Group	Control Group
Whole class strategy	5.3%	4.8%	3.7%
Parent specific strategy	18.2%	7.1%	0%
Focus on child	44.7%	42.9%	54.9%
Consultation	19.7%	9.5%	20.7%
Referral	11.8%	19%	13.4%
My own research	0%	16.7%	1.2%

## Outcome Data

The PI analyzed participants' posttest responses for preparedness data (for anxiety, depression, and PTSD) to ascertain if statistical assumptions were met before analyzing the data to answer the research questions. For each diagnosis, the mean and median were close. There was relatively no skew or kurtosis so it can be assumed that no outliers affected the results (See Table 16).

Table 16:  
*Normality of Data: Teacher Preparedness for Disorders in Classroom at Posttest*

	Depression	Anxiety	PTSD
Mean	3.28	3.42	3.08
Median	3.00	3.00	3.00
Std. Deviation	.77	.78	.83
Minimum	1.0	1.0	1.0
Maximum	5.0	5.0	5.0
Skewness	-.27	-.34	-.27
Kurtosis	-.08	.22	-.06

The homogeneity of regression assumption was also met for depression ( $p = .331$ ) and anxiety ( $p = .249$ ). This means that the relationship between the covariate (pretest scores of preparedness) and the outcome measure was the same for each intervention. The PTSD item violated the homogeneity of regression assumption ( $p = .010$ ). This means that the relationship between the covariate (pretest scores of preparedness) impacted the outcome score on this item.

The assumption of homogeneity of variances was met, as results of a Levene's Test were not significant (depression:  $p = .688$ ; anxiety:  $p = .968$ ; PTSD:  $p = .620$ ). As a result, we cannot reject the null hypothesis that the error variance of the dependent variable is equal across all groups. This indicates that variances of the populations from which three groups were drawn are similar. Based on these results we can use these variables and analysis to examine the research questions.

## Research Questions

The following section is organized by research question. Results from analysis follow each question posed.

*RQ1: Do early childhood teachers receive training about children's internalizing behaviors? If so, in what context does this training occur?*

HO1: It was hypothesized that teachers have received little to no prior training about children's internalizing behaviors in prior educational experiences. This hypothesis was supported. Data indicated that prior to the intervention, 69 (69.7%) participants received no training on "social-emotional issues like sadness and withdrawal," while 28 (28.9%) participants received some training. Of those participants who had received training, 14 provided additional information when asked to "please describe." Six participants reported exposure in a university child psychology course. Two participants listed child abuse and neglect courses. Five participants listed other professional development activities that included either in-service or continuing education programs. One participant listed Social and Emotional Literacy (SEL) training. It should be noted that at least 40 participants had received SEL training as part of mandated district-wide trainings in School district A. These participants did not view the SEL training as preparing them to deal with internalizing disorders.

When asked specifically about training related to "working with students who may be having trouble following Superstorm Sandy," 95 (96%) participants reported receiving no training. Of the remaining four participants, one listed "children's feelings" when asked to describe such training. In summary, most teachers reported a lack of training in general social and emotional issues.

RQ2: *Will early childhood teachers' feelings of preparedness to handle young children's internalizing symptoms change from before the interventions to after the interventions?*

HO2: It was hypothesized that early childhood teachers' feelings of preparedness to tackle depression, anxiety, and PTSD in their classrooms would increase after the intervention. This hypothesis was supported. The PI analyzed the data split by group using paired samples *t*-tests (See Table 17). The data show evidence that there was a difference between the two intervention groups (Strategies and Information) and the Control group when comparing pretest and posttest scores. In both the Strategies (depression:  $p = .001$ ; anxiety:  $p = .005$ ; PTSD:  $p = .001$  and Information (depression:  $p = .001$ ; anxiety:  $p = .001$ ; PTSD:  $p = .001$ ) groups, there were significant increases in perceived preparedness across disorders compared to the Control group (depression:  $p = 1.000$ ; anxiety:  $p = .800$ ; PTSD:  $p = .202$ )

Table 17:  
*Changes in Teachers' Self-perceived Preparedness to Tackle Depression, Anxiety, PTSD by Treatment Group.*

Intervention Group	Pair	<i>M</i>	<i>SD</i>	95% CI		<i>t</i>	<i>p</i>
				LL	UL		
Strategies	Depression	.41	.63	.18	.65	3.55	.001*
	Anxiety	.31	.54	.10	.516	3.08	.005*
	PTSD	.90	.67	.64	1.15	7.17	.000*
Information	Depression	.68	.67	.45	.90	6.14	.000*
	Anxiety	.62	.72	.38	.86	5.25	.000*
	PTSD	1.05	.78	.79	1.31	8.22	.000*
Control	Depression	.0000	.69	-.26	.26	.000	1.000
	Anxiety	-.03	.72	-.30	.23	-.25	.801
	PTSD	.17	.70	-.09	.43	1.30	.202

*Note.* *M* = means of difference; *SD* = standard deviation; CI = confidence interval; LL = lower limit; UL = upper limit. \*Indicates significance at the  $p = 0.05$  level.

RQ3: Will didactic (“Information”) vs. applied (“Strategies”) PD sessions affect teachers’ self-perceived competence differently?

HO3: It was hypothesized that the different PD sessions would affect teachers’ perceived confidence differently. Specifically it was hypothesized that participants in the applied PD sessions (Strategies) would report a greater increase in perceived confidence. The data did not support this hypothesis for depression, anxiety, or PTSD. A repeated measures analysis of variance (ANOVA) was used to test the effect of time (2: pretest and posttest) and group (3: Strategies, Information, and Control). The between-subjects factor was the three levels of the intervention while the within-subject factor was the pretest preparedness score. Results will follow separately for each disorder. This analysis uses Cohen’s (1988) guidelines for categorizing effect sizes using eta-squared (small effect = .01; moderate effect = .06; large effect = .14).

*Depression.* A general linear model was used to conduct the repeated measures ANOVA exploring within-subjects and between-subject factors. The data met the homogeneity and equality of variance assumptions (Levene:  $p = .286, .111$ ; Box’s:  $p = .471$ ). Multivariate tests revealed a large main effect for time (Wilk’s Lambda:  $p = .000, \eta^2 = .233$ ), a medium main effect for group ( $p = .003, \eta^2 = .118$ ) and a significant interaction between time and group (Wilk’s Lambda:  $p = .000, \eta^2 = .156$ ). Pairwise comparisons described in Table 18 demonstrate that there were significant group differences between the Strategies group and the Control group ( $p = .005$ ), and the Information group and the Control group ( $p = .013$ ), but not between the Strategies and Information group ( $p = 1.000$ ). Figure 2 is a graphical representation of the interaction between time and group for participants’ self-perceived preparedness to tackle depression in their classrooms.

Table 18:

*Comparisons of Group Means of Teachers' Self-Perceptions of Preparedness to Tackle Depression*

Group	Group	Mean		95% CI	
		Difference	Sig.	LL	UL
Strategies	Information	.07	1.000	-.30	.44
	Control	.501	.005*	.12	.90
Information	Strategies	-.07	1.000	-.44	.30
	Control	.43	.013*	.07	.80
Control	Strategies	-.51	.005*	-.90	-.12
	Information	-.4 <sup>4</sup>	.013*	-.80	-.07

*Note.* *M* = means of difference; Sig. = significance; CI = confidence interval; LL = lower limit; UL = upper limit. \*Indicates significance at the  $p=0.05$  level.

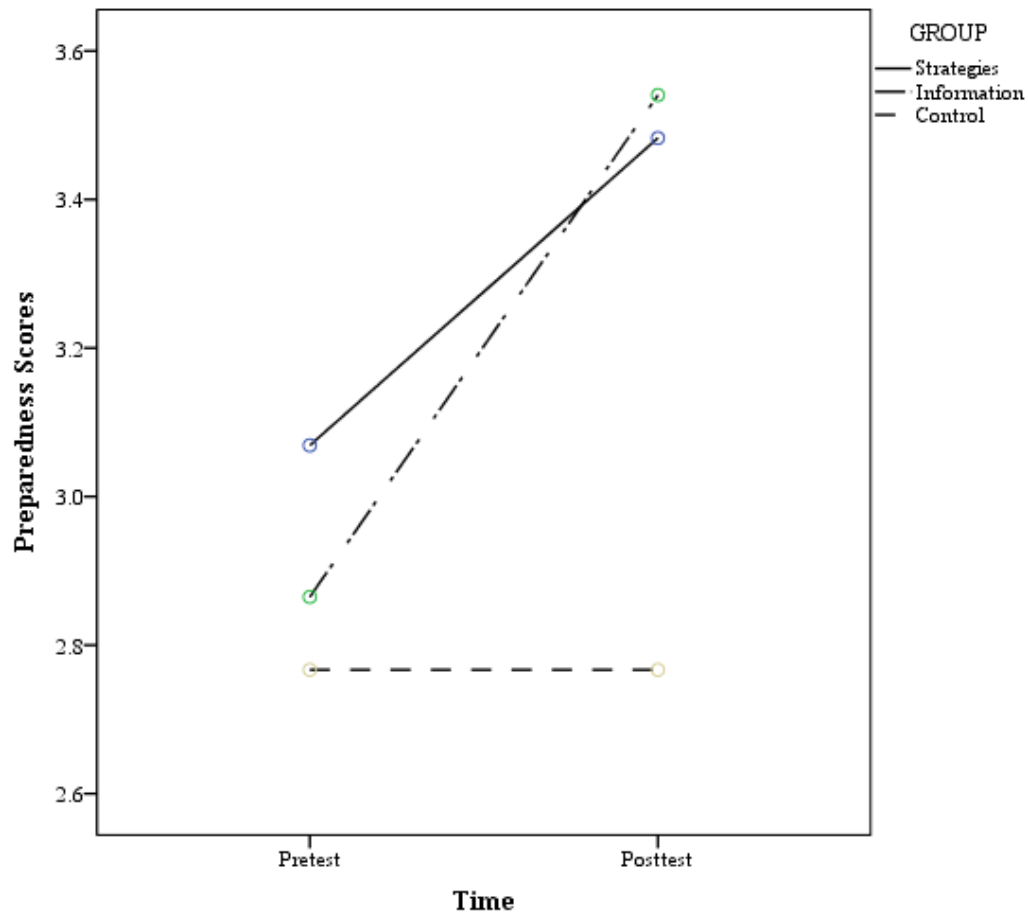


Figure 2: Teachers' Preparedness for Depression at Pretest and Posttest

*Anxiety.* A general linear model was used to conduct the repeated measures ANOVA exploring within-subjects and between-subject factors. The data met the homogeneity and equality of variance assumptions (Levene:  $p = .639, .723$ ; Box's:  $p = .414$ ). Multivariate tests revealed a large main effect for time (Wilk's Lambda:  $p = .000, \eta^2 = .169$ ), a medium main effect for group ( $p = .003, \eta^2 = .124$ ) and a significant interaction between time and group (Wilk's Lambda:  $p = .000, \eta^2 = .145$ ). Pairwise comparisons described in Table 19 demonstrate that there were significant group differences between the Strategies group and the Control group ( $p = .006$ ), and the Information group and the Control group ( $p = .007$ ), but not between the Strategies and Information group ( $p = 1.00$ ). Figure 3 is a graphical representation of the interaction between time and group for participants' self-perceived preparedness to tackle anxiety in their classrooms.

Table 19:

*Comparisons of Group Means of Teachers' Self-Perceptions of Preparedness to Tackle Anxiety*

Group	Group	Mean	Sig.	95% CI	
		Difference		LL	UL
Strategies	Information	.04	1.000	-.33	.41
	Control	.51	.006*	.12	.90
Information	Strategies	-.04	1.000	-.41	.33
	Control	.48	.007*	.12	.84
Control	Strategies	-.51	.006*	-.91	-.12
	Information	-.48	.007*	-.85	-.11

*Note.*  $M$  = means of difference; Sig. = significance; CI = confidence interval; LL = lower limit; UL = upper limit. \*Indicates significance at the  $p = 0.05$  level.

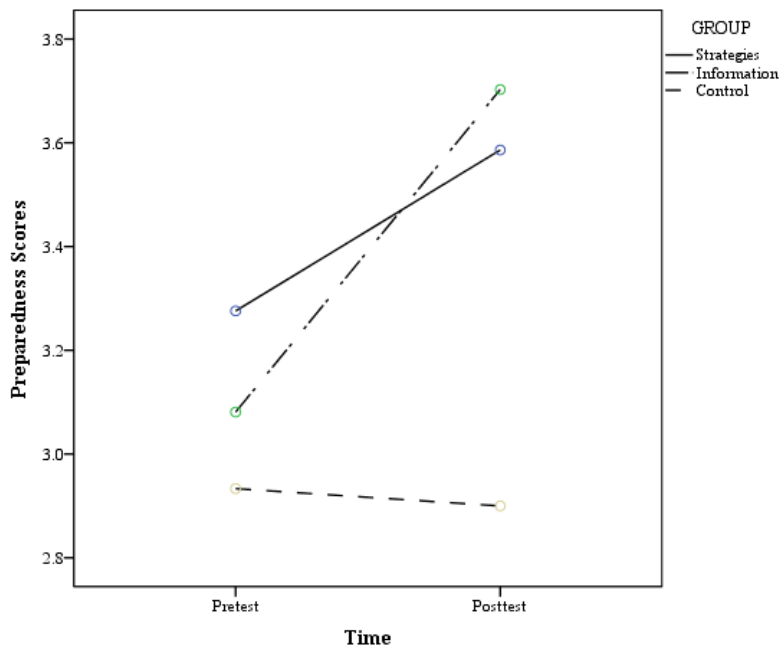


Figure 3: Teachers' Preparedness for Anxiety at Pretest and Posttest

*PTSD.* A general linear model was used to conduct the repeated measures ANOVA exploring within-subjects and between-subject factors. The data met the homogeneity and equality of variance assumptions (Levene:  $p = .967$ ,  $.055$ ; Box's:  $p = .074$ ). Multivariate tests revealed large main effects for time (Wilk's Lambda:  $p = .000$ ,  $\eta^2 = .492$ ) and group ( $p = .000$ ,  $\eta^2 = .164$ ) and a significant interaction between time and group (Wilk's Lambda:  $p = .000$ ,  $\eta^2 = .226$ ). Pairwise comparisons described in Table 20 demonstrate that there were significant group differences between the Strategies group and the Control group ( $p = .001$ ), and the Information group and the Control group ( $p = .002$ ), but not between the Strategies and Information group ( $p = 1.00$ ). Figure 4 is a graphical representation of the interaction between time and group for participants' self-perceived preparedness to tackle PTSD in their classrooms.

Table 20:

*Comparisons of Group Means of Teachers' Self-Perceptions of Preparedness to Tackle PTSD*

GROUP	GROUP	Mean Difference	Sig.	95% CI	
				LL	UL
Strategies	Information	.08	1.000	-.27	.43
	Control	.58	.001*	.22	.95
Information	Strategies	-.08	1.000	-.43	.27
	Control	.50	.002*	.16	.85
Control	Strategies	-.58	.001*	-.95	-.22
	Information	-.50	.002*	-.85	-.16

*Note.* *M* = means of difference; Sig. = significance; CI = confidence interval; LL = lower limit; UL = upper limit. \*Indicates significance at the  $p=0.05$  level.

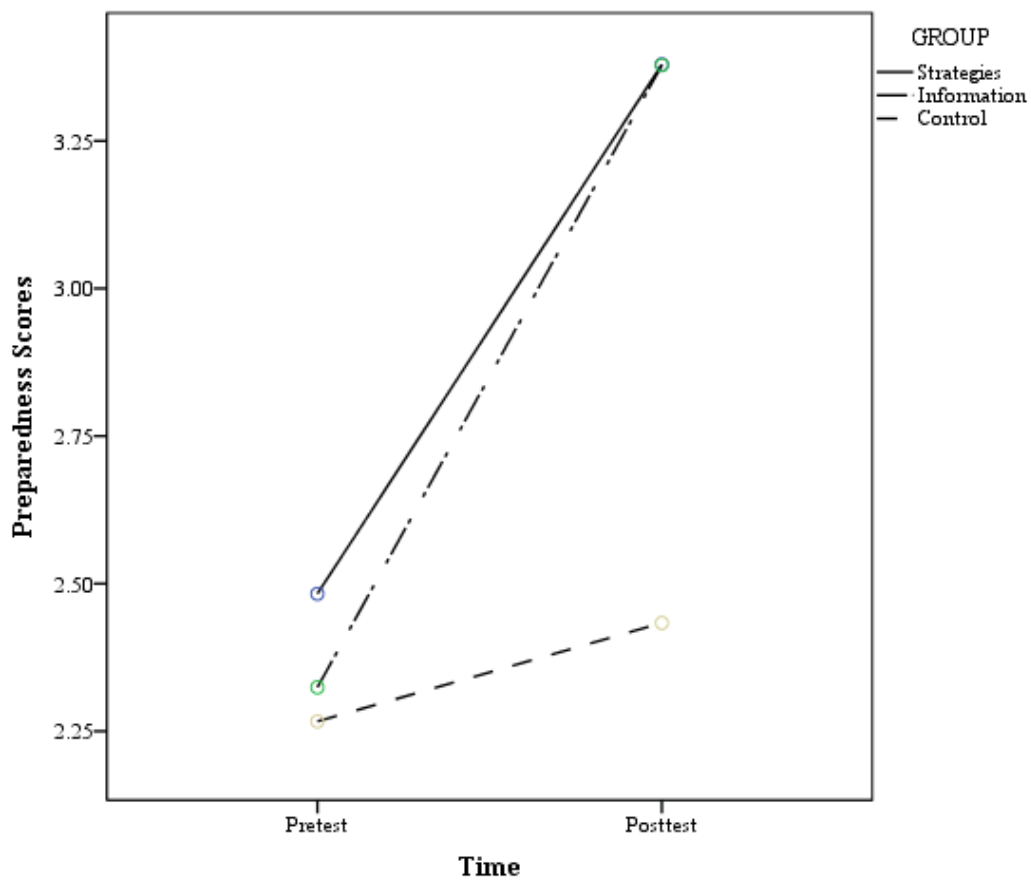


Figure 4: Teacher's Preparedness for PTSD at Pretest and Posttest

RQ4: Will teachers' responses to internalizing symptoms on vignettes tend to focus on implementing a specific plan with the child or broader classroom-based changes?

HO4: It is hypothesized that teachers' responses to the vignettes before the intervention will focus on implementing a specific plan with the child, whereas after the intervention, they will focus on broader classroom-based changes. The data did not support this hypothesis.

Participants ranked (one through five) possible actions they would take in response to the vignette. Rank order responses included, *“contact parents, adjust my own interactions with the child, monitor behavior of child, encourage child to interact with other kids, discuss this topic with the whole class (i.e., read a book about topic).”* The PI identified the following options as consistent with the ecological approach: *“monitor behavior of child, discuss this topic with the whole class (i.e., read a book about topic.)”* The other options exemplified individualized attention given to the child. Since the PI identified the ecological approaches as ideal responses, the following points system was utilized for scoring during data analysis:

- 0= neither whole class nor monitoring
- 1= either whole class or monitoring in second slot
- 2=either whole class or monitoring in first slot
- 3=whole class or monitoring in both first and second slots

The PI created an “Ecological Response” score for each vignette in the pretest and posttest. Participants earned anywhere from zero to three points for their rank order responses per vignette. Higher scores indicated response patterns that were consistent with the ecological approach addressed in the interventions. The PI combined responses to the vignettes into broader disorder categories since participants responded to one of two vignettes per disorder (i.e., Carla or Pricilla pretest ranking score became Depression Pretest ranking score). As such, the PI made three comparisons (pretest to posttest) per participant. For instance, if a participant

completed Form A, her responses to Carla's behavior at pretest were compared to her responses to Pricilla at posttest.

The PI analyzed participants' Ecological Response score. Descriptive analysis supported statistical assumptions of skewness, kurtosis, homogeneity of regression, and homogeneity of variance. A one-way ANCOVA was used, using the pretest score as the covariate. The between-subjects factor was the three levels of the intervention and the within-subject factor was the preparedness pretest score. Participants' posttest ranking score was the dependent variable per vignette. Ecological Response scores were the covariate and intervention group was the independent variable. At posttest, there were no significant differences between participants in the three groups for any of the disorders (depression:  $F(2,86) = .509$ ; anxiety  $F(2,86) = .272$ ; PTSD  $F(2,86) = .591$ ). Additional analyses confirmed that there were no significant differences between groups. This supports the null hypothesis that there are no differences between intervention groups in Ecological Response Score. Table 21 shows the results of a paired sample *t*-test comparison of participants' rank order scores from pretest to posttest broken down by group. These results indicate that participants' scores from pretest to posttest did not change significantly regardless of group or disorder, with one exception. Within the Strategies group, participants' scores on the depression vignette significantly increased from pretest to posttest ( $p = .043$ ).

Table 21:

*Paired Sample T-Test Comparison of Teachers' Rank Order Scores between Pretest and Posttest*

Group		<i>M</i>	<i>SD</i>	95% CI		<i>t</i>	<i>p</i>
				LL	UL		
Strategies	PTSD	.00000	1.08278	-.40432	.40432	.000	1.000
	Anxiety	-.03333	1.03335	-.41919	.35253	-.177	.861
	Depression	.26667	.69149	.00846	.52487	2.112	.043*
Information	PTSD	.18182	.88227	-.13102	.49466	1.184	.245
	Anxiety	.22581	.99028	-.13743	.58904	1.270	.214
	Depression	.25806	1.23741	-.19582	.71195	1.161	.255
Control	PTSD	.10000	.84486	-.21548	.41548	.648	.522
	Anxiety	-.27586	.75103	-.56154	.00981	-1.978	.058
	Depression	-.10345	.77205	-.39712	.19022	-.722	.477

*Note.* *M* = means of difference; *SD* = standard deviation; CI = confidence interval; LL = lower limit; UL = upper limit. \*Indicates significance at the  $p = 0.05$  level.

### Qualitative Results

**Classroom Observation.** The rationale for conducting the observation was to collect information about the early childhood teacher's reactions and awareness to social and emotional issues within her classroom. The PI observed a teacher in her classroom prior to completion of the pretest and intervention. Due to scheduling conflicts and a lack of teacher availability, the PI only observed one participant. The full running record is attached as Appendix F. The observation was conducted three weeks prior to the intervention for 20 minutes during a literacy block. The prekindergarten classroom included a lead teacher (Ms. X) and a teaching assistant (Ms. Y), and included seven boys. The routine began with the students sitting on the floor singing the days of week, months, seasons, and discussing the date and weather. During these activities all students participated except for a student, "Vic," sitting with Ms. Y in a chair. When Ms. X asked the students "What is the weather like?" one replied said, "My house got flooded last night." Ms. X replied, "I don't think your house got flooded last night." The child then indicated that his shed was damaged and lost power during Superstorm Sandy. They then participated in an activity where they moved their bodies around their floor spots while singing

along to a familiar tune. Vic was yelling the words and Ms. X looked at him and said, “Excuse me,” and waited. When he stopped yelling, Ms. X transitioned to reading Little Bunny’s Easter Egg Surprise by Susan Hood. As Ms. X read a page of the story, she asked, “How is little bunny feeling?” One student replied “Sad.” Ms. X asked, “Why?” One student replied that it was because he had no Easter eggs. Ms. X asked, “What’s on his face?” Another student replied, “A frown.” The observation continued as the class continued to discuss the book and plan an arts and crafts activity for the class.

**Teacher Interviews.** Five participants volunteered to participate in follow up interviews two to four weeks following the intervention and posttest collection. This included three participants from the Strategies group and two participants from the Information group. Research assistants did not conduct interviews with any members of the Control group as they participated as a waitlist control and received the Strategies intervention immediately following completion of the posttest. The interview questions and a summary of participant responses follow.

*In your teaching experience, have you encountered children who appear to be experiencing depression, anxiety, or PTSD?*

All interviewees spoke about their experiences with children with depression and anxiety in the classroom. One participant from School District A explained:

“If it’s raining at least a few of them will still say ‘it’s a flood again.’ I don’t think that they are depressed. One of my boys had to move to his grandfathers’ because of damage from the storm. He still says ‘I’m moving. I think I’ll move.’ I think he is still confused and upset. The kids still talk about the power going off and wonder if it will go off again. They discuss it among themselves in the lunch room.”

*If so, please describe one example. How did you handle it? Were you satisfied with what you did? What might you do differently next time?*

All participants described situations with children demonstrating symptoms. They reported effective strategies as including validating the students' emotions, and focusing on the child's safety. Other strategies included keeping contact with parents with information about the child's functioning within their classrooms. One participant from a private early childhood center explained:

"I validate that he is upset and explain that sometimes we don't get to sit with our friends. It's ok. Firemen will protect us. I try to be very rational by saying it's ok to be upset or it's ok to be scared. It helps him so I wouldn't do anything different. He has a special pipe cleaner and ball I give him to hold."

*Do you feel prepared to tackle anxiety/PTSD/depression? How so?*

Participants reported feelings of preparedness but many felt as though they wanted to have more training opportunities. One participant explained, "I feel somewhat prepared but I'm not trained at all. It's interesting how little we learn about it. I have my masters so I have gone through a lot of education. They don't talk about this." A participant in the Information group echoed, "I feel a little prepared but I feel like I could benefit from more tools in my toolbox. I hope there is more I can do."

*What barriers within your school (such as time, focus on other issues) do you feel exist to address mental health issues in schools?*

Participants interviewed reported supports within their settings, but some barriers included not enough mental health professionals for the number of children (time constraints). One

participant explained: “I don’t always feel like I can reach out to the supports we have for things like anxiety.”

*What type of training do you wish you had that you did not receive in training programs related to students’ mental health issues?*

Participants lamented not having enough training to work with internalizing students. One participant in the Information group commented: “I wish I was given more. I can identify it [mental health issues] but I need some hands on training to practice what I can do to help the kids actually feel better and not be so anxious. I also would like to know more about when to reach out to other supports.”

*What kind of supports does your school offer for dealing with children who are displaying anxiety/depression?*

Participants described a variety of supports available to them in their schools including social worker, school psychologist, principal, and nurse.

*How useful are these school policies/supports?*

Most participants found these supports useful but one noted, “I don’t always feel that I can reach out or know when to reach out for more support.”

*What would you like your school to do differently to tackle these issues?*

Participants reported more professional development would help staff in their schools. Another participant added: “No one wants to talk about these taboo topics. We don’t talk about it.”

*After the sessions, do you find that you have changed anything in your approach to handling internalizing symptoms in your classroom-based on the PD sessions? In what way?*

Participants reported an increased awareness to internalizing issues in their students including paying more attention to student behaviors, asking different questions, and collaborating with families. As one participant noted:

“I think different about depression and PTSD. Maybe when a child is having trouble it is something more and I want to really pay attention to signals. I think I need to be really talking more deeply to children to see what may be there or not. I think more about talking to the parents too. I always did this. But now I see how important it is. I do it [talking to parents] more critically now I think.”

### **Reflection data**

After completing the posttest, participants responded to questions about the perceived utility of participation in the professional development. Participants within the waitlist Control group received the Strategies intervention following completion of the pretest and posttest. Their responses to these questions are combined with the Strategies group (as the intervention was the same). Overall, 59.3% of participants reported that the intervention was “Very Useful.” The remaining 40.7% of participants rated the intervention as “Moderately Useful.” Participants did not respond differently between groups.

Participants also reported their likelihood to share the information provided during the professional development on a scale: “*Definitely, Very Probably, Probably, Possibly, Probably Not, Very Probably Not.*” Participants across groups tended to respond similarly to this prompt. Overall, 74% of the Strategies group compared to 45% of the Information group reported that they would “Definitely” or “Very Probably” share the Information learned from the PD with colleagues. Table 22 shows responses broken down by specific answer choice and group.

Table 22:  
*Teachers' Likelihood to Share Materials from Intervention*

Group		Frequency	Percent (%)
Strategies	Possibly	7	11.3
	Probably	9	14.5
	Very Probably	22	35.5
	Definitely	24	38.7
	Total	62	100.0
Information	Possibly	6	19.4
	Probably	11	35.5
	Very Probably	4	12.9
	Definitely	10	32.3
	Total	31	100.0

### Summary of Findings Related to Main Study Research Questions and Hypotheses

Table 23 presents a summary of the main study research questions and hypotheses. Results supported two of the four hypotheses.

More than two thirds of participants reported that they received no training on issues related to student social and emotional well-being. However, many more participants had attended mandated workshops as part of district-wide SEL program implementation. Paired sample *t*-tests showed that participants' feelings of preparedness across disorders in both intervention groups (Strategies and Information) increased significantly from pretest to posttest compared to the control group. Repeated measures ANOVAs indicated main effects for time and group, and an interaction between the two in affecting participants' preparedness from pretest to posttest across disorders. However, these analyses yielded no significant differences in feelings of preparedness between the Strategies and Information group at posttest. Analysis of responses for "what would you do next" for each vignette yielded insignificant differences between the three groups. Interpretation of these findings will follow in Chapter 5: Discussion.

Table 23:

*Summary of Main Study Research Questions and Hypotheses*

Number	Research Question/Hypothesis	Evidence For/Against	Supported/ Not Supported
R01	Do early childhood teachers receive training about children's internalizing behaviors?	Descriptive statistics demonstrated that most participants received no training.	Supported
H01:	It is hypothesized that teachers have received little to no prior training about children's internalizing behaviors in prior educational experiences.		
R02	Will early childhood teachers' feelings of preparedness to handle young children's internalizing symptoms change from before the interventions to after the interventions?	A paired sample <i>t</i> -test, comparing pretest and posttest scores, found significant changes between the intervention groups (Strategies and Information) and the Control group.	Supported
H02:	It is hypothesized that early childhood teachers feelings of preparedness to tackle depression, anxiety, and PTSD in their classrooms will increase after the intervention.		
R03	Will didactic ("Information") vs. applied ("Strategies") PD sessions affect teachers' self-perceived competence differently?	A repeated measures ANOVA revealed that for each diagnosis there were main effects for both: time and group as well as an interaction between the two. The analysis yielded no differences between the Strategies and Intervention groups.	Not supported
H03:	It is hypothesized that the different PD sessions will affect teachers' perceived confidence differently. Specifically it is hypothesized that participants in the applied PD sessions will report a greater increase in perceived confidence.		
R04	Will teachers' responses to internalizing symptoms on vignettes tend to focus on implementing a specific plan with the child or broader classroom-based changes?	A one-way ANCOVA revealed no significant differences between the three groups on rank order score.	Not supported
H04:	It is hypothesized that teachers' responses to the vignettes before the intervention will focus on implementing a specific plan with the child, whereas after the intervention, they will focus on broader classroom-based changes.		

## **Chapter 5: Discussion**

This chapter focuses on the interpretations of the results, and draws conclusions related to the hypotheses formed. Limitations of the study are described, as well as ideas for future research and implications of results.

### **Summary of Findings**

This investigation sought to explore the effectiveness of two PD interventions designed to promote teacher preparedness to tackle depression, anxiety, and PTSD in early childhood by comparing scores on pretest and posttest measures. One intervention, “Strategies,” presented specific tools and strategies for classroom implementation; while the other intervention, “Information,” focused on facts and figures about manifestation of these internalizing disorders in early childhood. The study was initially designed to only explore anxiety and depression in early childhood. However shortly before proposing the current study, Superstorm Sandy affected the nearby areas causing serious destruction and power outages. Numerous school districts in the area closed for at least a few school days and many students were forced to stay with relatives as their own homes suffered serious damage. Seeking an opportunity to provide teachers with knowledge about how these events may impact their students, the PI added the topic of PTSD to the current investigation. Participants included those working with children from birth to age nine, and were split into three groups. At pretest, participants on average reported feelings of moderate preparedness to tackle anxiety and depression in their classrooms. Participants felt far less prepared to work with students who demonstrated symptoms of PTSD. Personal characteristics such as number of years teaching and personal or professional experiences working with these disorders did not predict preparedness levels for participants. Most participants did not report prior training in social and emotional issues related to early

childhood. After the intervention, participants in the two intervention groups reported significant gains in feelings of preparedness across the three disorders compared to the Control group. However, there were no significant differences in participants' feelings of preparedness between the two interventions. The pretest and posttest surveys utilized vignettes specifically created for the current investigation. It was hypothesized that participants' responses to the vignettes would become more consistent with the ecological approach following the interventions. The findings did not support this, as participants' responses did not consistently change based on type of intervention exposure. Other findings described in the previous chapter will be highlighted and explored.

### **Symptom Typicality**

Participants characterized the behavior described in each vignette as typical or atypical given the child's age. This was included to ascertain participants' flexibility in thinking about children's behaviors. Participants who characterize more students as "typical" may have a more inclusive view of typical social and emotional development in early childhood. At pretest, more than half of participants rated the vignettes describing depressed children as atypical, while more than half of participants rated vignettes describing children demonstrating symptoms of anxiety or PTSD as typical. This finding was noteworthy given that participants reported similar levels of personal preparedness to work with children who are anxious or depressed. In fact, this suggests that participants may not feel as comfortable with depressed children as they are with anxious children. It is also possible that some of the anxiety symptoms described in the vignettes correspond more closely than the depressive symptoms to their students' behavior. It is possible that more participants rated PTSD symptoms as typical given the current climate in their environment. Many of their own students were dealing with a traumatic weather event (i.e.,

Superstorm Sandy) similar to that described in the vignettes. Some of the described symptoms may have actually been concurrently present within the participants' classrooms.

Many participants provided free responses to explain their reasoning in categorizing behaviors as typical or atypical. In order to obtain patterns of this qualitative data, the PI and RAs coded these responses. At pretest, the most frequent coding for free responses was "Environmental Stressor." This code was used for participants' responses that described the behavior either as typical given the life event or as atypical because the event was rare and not a typical life experience. Although these two perspectives are not in agreement in categorizing the behavior as typical, they explain behavior through the lens of environmental contexts. By looking at the circumstances of environment, typicality ratings are less person-centered around the child, but are evaluating the child within a problem solving approach. This is an important application for teachers, given the impact of major life events on children's functioning. Classroom behavior is not just a reflection of a child's personality characteristics or academic skills, but in fact a product of a child's environment.

At posttest, different response patterns began to emerge for each disorder. For depressive symptoms, across groups participants' ratings were split between typical and atypical. This represented a change from pretest, when participants categorized depressive behaviors as more atypical than typical. Since no group difference emerged, the cause for this is unknown. For anxious symptoms, participants in the two intervention groups changed from giving more typicality ratings at pretest to giving more atypicality ratings at posttest. In contrast, the Control group's responses remained stable. This change could have emerged from exposure to the PD that included symptoms and strategies (or information) about early childhood anxiety. Perhaps learning about symptoms and possible long-term consequences alerted participants to the

severity of this internalizing disorder, causing some of them to characterize the behavior as atypical. For the PTSD symptoms at posttest, participants in the Strategies and Control groups were split evenly in rating these behaviors as typical or atypical. Almost three quarters of the Information group rated these same behaviors as atypical. These participants represented a substantial shift from pretest ratings of PTSD symptoms as typical. The Information PD included prevalence rates and specific symptomology highlighting the difference between appropriate reactions to traumatic events and symptoms of PTSD. This exposure may have alerted participants to the fact that PTSD symptoms require interventions, may have long-term consequences, and are not developmentally appropriate responses to trauma. The Strategies PD provided a more hands on approach, presenting intervention tools that may have mediated a similar response in that group by equipping them with specific approaches.

There were notable group differences in free responses at posttest. Half of the responses in the Strategies group were coded as “Environmental Stressor,” which reflected the ecological approach detailed during the PD. This can also explain the decrease in “Personality” responses, as the effect of external factors on children’s behavior was emphasized. Almost a third of responses were coded as “Diagnostic Label.” The increase in these responses from pretest to posttest can be explained by the brief discussion of symptomatology in the PD. The Information group responded very differently at posttest. Presumably because of the content of the PD (i.e., addressing diagnosis criteria for three specific disorders), there was a substantial increase in “Diagnostic Label” and “Duration/Development” responses with a notable decrease in “Environmental Stressor” responses. At the expense of utilizing the ecological approach, which incorporates external factors, the Information group was more likely to assume typicality or atypicality based on the child’s symptoms adhering to specific diagnostic criteria. Each criterion

included a timetable for diagnosis. The “Duration/Development” code included responses addressing length of time of symptoms. Participants in the Control group produced a response pattern similar to the pretest responses.

### **Research Questions**

**Prior training.** Supporting the hypothesis, most participants reported they had not received prior training that covered social-emotional issues like sadness and withdrawal in early childhood. Those who reported prior training listed college courses, state mandated workshops (i.e., child abuse), and continuing education programs. Only one participant listed a district-run SEL program. This was noteworthy because a district-wide SEL program is in full swing in Suburban District A. However, the 40 participants within this district did not report this. District administrators confirmed that all teachers within the district have received mandated training on implementing this program within their classrooms. As detailed in Chapter 3, the Ruler Approach SEL program addresses issues such as teaching students elements of emotional intelligence, to label their current mood, grade appropriate feeling vocabulary words, and addressing problem solving skills. Despite implementation within the district and the utility of using these skills with students who are demonstrating internalizing symptoms, these teachers do not report this as prior training. In a meta-analysis, Durlak, Weissberg, Dymnicki, Taylor, and Schellinger (2011) found that students in SEL programs had better behavioral (both internalizing and externalizing) and academic outcomes compared to peers in a Control group. However, research on teacher beliefs and implementation paints a more complex picture of perceived SEL utility. This may help explain teacher’s lack of recognition of a connection between SEL and internalizing disorders.

In one study Buchanan, Gueldner, Tran, and Merrell (2013) explored teachers' beliefs, perceptions, and practices toward SEL implementation in classrooms. They found that overwhelmingly, teachers believed SEL programs are important, and lead to positive academic outcomes for students. These teachers also reported willingness to receive support from school staff (administrators, mental health professionals, and other teachers). Despite acknowledging the effectiveness of SEL programs in promoting positive behaviors and academic growth, teachers were not willing to sacrifice instructional and/or prep time to access the programs. Only 36.4% of teachers reported that devoting one class period per week to SEL was very feasible (33.7% reported somewhat feasible, and 27.7% reported not feasible). Similarly, 71.6% reported that it was not feasible to devote 30 minutes of prep time a week (17.8% said somewhat feasible and 4.2% said very feasible). Not surprisingly, due to high academic demands, these teachers reported time as a major barrier to implementation. If teachers are not able to give of their time to implement these programs, how can we promote their implementation? A literature search yielded sparse research on the use of school-based mental health professionals for implementing school-wide SEL programs. It is important, though, that as we contemplate time and monetary investment in these programs, we also consider broadening the scope of their implementation. Teachers need to know the importance of these strategies in promoting mental health wellness in their students. Although SEL training may not explicitly articulate its applicability for prevention of internalizing disorders, it is the responsibility of school psychologists to convey that message and promote positive mental health.

**Perceived preparedness.** Informally, teachers reported that they worry about their quiet students who may be overlooked and suffering from an internalizing disorder. In other words, teachers are concerned about internalizing students, but are untrained in how to work with these

children. Participants' feelings of preparedness for each disorder (depression, anxiety, and PTSD) significantly increased from pretest to posttest in the two intervention groups compared to the control. Repeated measures ANOVA revealed medium to large main effects for time (i.e., pretest to posttest) and group (i.e., Strategies, Information, and Control), as well as a significant interaction between the two. Participating in the intervention, where they learned basic facts about symptomatology in the classroom and how to utilize an ecological approach may have empowered teachers to feel more comfortable working with students who may have anxiety, depression, or PTSD. Although the two interventions were different, there was some overlap, as both provided brief symptoms and signs, presented an RTI/Prevention/PBIS format, and offered an ecological and problem solving approach framework. While most teachers reported familiarity with RTI, many had not seen its application in nonacademic or behavioral contexts. By learning about symptoms as well as a framework to think about behavioral issues in general, participants may have felt better prepared to work with their students. Beyond identifying which students are in need of support, the Strategies group also learned specific classroom-based interventions. Being equipped with these tools may have contributed to participants' increased preparedness. These short interventions increased teachers' confidence to work with children suffering from internalizing symptoms.

It was hypothesized that there would be a significant difference between participants in the two intervention groups. The Strategies intervention included hands on tools and suggestions, while the Information intervention provided facts and symptoms. It was hypothesized that participants in the Strategies group would have the largest gains in reported feelings of preparedness to tackle anxiety, depression, or PTSD. Analysis revealed, however, that participants' feelings of preparedness at posttest did not differ significantly between the two

intervention groups. It is possible that because teachers want to know more about the topic, the type of intervention does not matter in helping them feel more prepared to work with students in their classrooms. Another possible explanation for the lack of significance was that, although the main focus of each intervention differed, there was substantial overlap in subject matter covered. The three-tiered framework and problem solving approach provided the necessary background for which to apply specific suggestions within the Strategy intervention. However, including the factual material that was also a part of the Information intervention reduced the difference in content between the two groups. Such an overlap may not have given the Strategies group the anticipated advantage. Since the current findings indicate increased feelings of preparedness following the intervention, future research can explore the effectiveness of more strictly strategy-based interventions.

**What next? Rank order data.** Participants ranked the steps they would take next if the child described in the vignette were in their classroom. It was hypothesized that after exposure to the Strategies group, participants would rank steps consistent with the ecological model as more important. This hypothesis was based on pilot test results that indicated that following the intervention, participants' free responses shifted from more person-centered strategies such as "Contact the parents" to more ecological approaches, e.g., "Discuss this topic with the whole class." Results of the current investigation did not indicate any consistent patterns of responses across the three groups.

Participants provided additional open-ended responses to this prompt. Specific descriptions of their contact with parents were of interest. The original option of "Contact the parents" was meant to represent calling parents to report that their child is exhibiting a problem behavior. However, in their responses, many participants described contacting parents for the purpose of

finding out more information about the child (i.e., “Is this behavior seen at home?”), or to collaborate with the parent to discover effective strategies or find necessary supports.

Collaborating with parents is a distinct from reporting a behavior problem to a parent. For many participants, the option of “Contact Parent” was not specific enough to convey their intended action, so they described the specific way in which they would communicate and collaborate with parents. These responses were then coded as “Parent Specific Strategy.”

Although no significant patterns emerged when examining the free responses, there was one noteworthy shift in the Information group. Compared to pretest, fewer participants listed “Consultation,” while more participants listed “Referral.” The code for “Consultation” was used to code statements that specifically addressed collaboration with mental health providers such as: “speak to the school psychologist” or “bring it up at a team meeting.” The code “Referral” was used for suggesting the child receives services outside of the classroom such as: “Make a referral for psychiatric help.” Since the Information PD focused on symptoms and prognosis, participants may have felt that those children demonstrating these symptoms were at a higher risk and needed serious supports and interventions sooner rather than later. This PD may have inadvertently caused teachers to interpret early signs as evidence of psychopathology. On the other hand, there were similar rates of “Consultation” and “Referral” codes in the Strategies group at posttest. This group did not demonstrate the shift seen by the Information group. The results from the Ecological Responses score data do not show significant effects of the intervention. However, important questions are raised about how teachers examine their next steps within an ecological and problem solving framework. Future research should explore more specific measurement of teachers’ application of this approach.

These rank order options listed for the participants reflected but did not exactly mirror material discussed in the PD sessions. For instance, the PI neither discussed these vignettes in the sessions, nor modeled responses to them. The Strategies intervention presented specific techniques at Tiers I and II while emphasizing the importance of monitoring all student behavior in the classroom. However, the PI did not explicitly list the rank order items in order from highly preferred to least preferred responses. Because it was not clearly stated during the sessions, the PI's desired ranking may not have been obvious to participants. Perhaps their response pattern gave us a glimpse of participants' beliefs that may not have been changed based on the current intervention. Furthermore, following the sessions, some participants asked the PI for the "right" answers to these questions. There may have been a disconnect between what was learned in the PD and what was assessed in the surveys. The next step may be to modify both the PD and the survey to measure more accurately the effectiveness of the intended intervention.

### **Qualitative Data**

Participants who elected to complete the qualitative data components contributed additional time out of their teaching and personal schedules to communicate with the PI and RAs. They all reported high interest in the topic and were eager to contribute to the literature in this area. This heightened awareness may not be representative of all early childhood teachers. These results are a snapshot of these select participants and can inform future qualitative explorations in this area.

**Observation.** The observation yielded information about how children within the participant's classroom were showing continuing effects from Superstorm Sandy, which had occurred five months prior. For example, a student expressed concern that his house flooded the night before. The teacher reassured the student that his house was safe and that the rain was not

indicative of a larger storm. In speaking with the PI prior to the observation, the teacher had mentioned that students in her class voiced concern when it rained. It is likely that the frequency of these concerns will diminish over time as students' lives return to normal.

Related to broader social and emotional issues, the teacher solicited student comments about the emotional state of characters within the book she was reading, and asked students to explain their responses. These strategies exemplified appropriate Tier I supports that were similar to those presented in the Strategy intervention. Although this observation exemplified appropriate teacher behavior, the current study could not determine whether it was representative of the larger sample, which varied across a number of demographic factors including students' age, grade, and student-to-teacher ratio.

**Interviews.** Overall, interviews with teachers exposed their appreciation for participation in the workshop and desire to know more about how to help children who may have internalizing disorders. Interviewees described supports within their schools (i.e., mental health providers on-site) or offsite (i.e., as needed consultants). It seemed that, although these participants had opportunities to seek consultative support, some felt they could not reach out for these specific issues. A couple of them mentioned that they could speak with an onsite person if behavioral issues emerged, but that they did not feel comfortable reaching out for internalizing disorders. This may be due to the detrimental impact of disruptive behaviors on overall classroom functioning. If teachers see support staff as only willing to help address these problem behaviors, internalizing youth may continue to go unnoticed. This raises questions about barriers to collaboration within the school building. Are teachers correct in their assumption that school psychologists are overwhelmed with their caseload and, as a result, can only offer support for major behavioral disruptions? Or are teachers misperceiving school psychologists' willingness to

help? More inquiry is needed to explore reasons that teachers avoid seeking help for internalizing issues when supports are available to them.

### **Limitations**

Although the current investigation offers unique insight into teacher preparedness to tackle internalizing disorders within their classrooms, there are several limitations and directions for future inquiry. There were inadequate validity checks in construction of the vignettes. Prior to pretest, graduate student raters completed questionnaires to validate the vignettes as representing the three disorders (depression, anxiety, and PTSD) and similarity between symptoms of the two vignettes per disorder. These scores demonstrated strong agreement between the raters. However, agreement about the severity of disorders was not measured before data collection. Only after data collection, the PI sought to create optimal severity scores and rank order data based on raters' scores. The purpose was to obtain validity for evaluating participants' responses. At that time, the PI asked graduate student raters to read each vignette and identify level of seriousness and "next steps" rank order data. The PI designed all six vignettes to be moderate in seriousness. The results demonstrated a lack of consistency among raters on vignette severity. There was not agreement about seriousness of symptoms within each vignette dyad per disorder for anxiety and depression. Raters did consistently rate vignettes of PTSD as severe, which reflected participants' ratings. It can be hypothesized that because traumatic events described in the vignettes are more severe, the behaviors were interpreted as more serious. However, the lack of consistency is an area for future inquiry to improve the survey measure. Further examination of the patterns of qualitative reasons provided by these participants could be used to create future measures to explore the variability among participants and raters. For future validation of the survey, data on typicality and seriousness ratings may be improved by

providing specific definitions of the categories (i.e., what behaviors constitute “typical”).

Providing exemplars of internalizing disorders during the PD sessions may help clarify levels of symptom seriousness for participants. Although an extensive multimedia search did not yield any videos featuring internalizing symptoms in early childhood for this project, future contact with national organizations such as the American Psychological Association may help to provide video exemplars for training purposes.

Additionally, raters did not agree on optimal rank order. These items asked the reader to list (from one to five) the next steps and actions they would take if the described child were within their classroom. Due to this lack of consensus, the PI identified optimal choices consistent with a theoretical orientation, an ecological approach emphasized in the PD, for analysis. The PI would have made necessary changes to the vignettes if these two validation methods were utilized prior to data collection. This would have allowed for additional data analysis and broader interpretation of the results.

The sample used in the current investigation was ample and diverse. However, the sample size was relatively small within each intervention group. Larger numbers may have produced significant results when comparing the two interventions. Moreover, the sample was heterogeneous in that it included teachers as well as other educators (i.e., teaching assistants and aides) within urban and suburban settings, working with children from birth to age nine. Despite not identifying significant differences among these clusters in the current investigation, distinctions among these groups of educators should be further explored. Since recruitment was difficult due to a lack of response among district administrators, the PI invited additional participants and sites beyond the original scope (contributing to the diverse age ranges). The heterogeneity within the sample made it difficult to use demographic data to predict participants’

feelings of preparedness at pretest because of the great amount of variability (i.e., type of employment, years in current setting) and relatively small sample size. For instance, if a higher percentage of participants were teachers, factors such as years of employment or number of certifications may have significantly predicted self-perceived preparedness. Although both participating school districts were public, they differed when examining demographic data. Students in Suburban District A are mostly white and less likely to be receiving free or low cost lunch compared to Suburban District B that represents ethnically and culturally diverse students. Additionally, Suburban District A has a district-wide packaged SEL program while Suburban District B has created its own SEL curriculum. These differences account for the samples within each district having dissimilar everyday experiences within their own school buildings, which may impact their experiences with internalizing symptoms in youngsters. However, there were no significant differences in perceived preparedness or professional experience between teachers in the two districts. The measures utilized may not have been sensitive enough to detect the effect of different school climates. Future research needs to utilize a larger sample size that can support more fine-grained analysis of these differences to examine the broad range of perspectives evident in a heterogeneous sample.

Despite attempts to create and follow a well-delineated research plan, implementation issues arose throughout data collection. Random assignment was only utilized for the first two sessions. Since the PI was the only researcher prepared to provide the PD, extenuating circumstances required the next three sessions to be in the Control group, and the remaining sessions to be the Information group. Having one interventionist provided consistency, but since there were nine different sessions of data collection, unintentional factors may have impacted treatment delivery. For instance, group sizes per session ranging from 4 participants to 21 may

have affected treatment delivery. Participants reported interest in the topic because of salient current events that may have affected their own lives or their students' (i.e., Superstorm Sandy). However, data collection took place over the course of six months in which time the effect of those events may have diminished. For instance, Suburban District A, Sample 1 (Strategies group) was collected less than six months following Superstorm Sandy when many participants and their students' were still recuperating from the storm. On the other hand, Sample 2 from the same district was collected 11 months following Superstorm Sandy when many within the district had already recovered from the immediate damage of the storm. Changes in their reactions to vignettes and questions in the surveys may have been affected by the passage of time, not necessarily by the intervention.

Data collection relied primarily on self-reporting from participants who willingly signed up to participate in the study afterschool. They received continuing education credit from their employers or accrediting bodies (i.e., local early childhood associations) for participating. Informally, teachers reported that they signed up because of their interest in the topic. It is unknown how the results of this study would change if conducted with all teachers within a school such as within the context of the school day (as mandated PD). Teachers who chose not to sign up may report different levels of preparedness to tackle internalizing issues than current participants (perhaps reporting stronger or weaker feelings of preparedness).

Qualitative data offered a small snapshot of the behaviors and beliefs of teachers. The PI conducted only one observation, limiting this qualitative data. Scheduling time with administrators to permit observations proved to be difficult, preventing additional collection by the PI or RAs. More observations may have demonstrated other strategies in response to

students' internalizing behaviors. Therefore, we cannot make any broad interpretations from the current observation data.

Interviews offered the opportunity to arrange a time directly with a participant. Research Assistants did not conduct interviews with any Control group members due to the nature of the procedure of the wait-list control. Qualitative information about perceived barriers and support within the school was limited to the participants who already received an intervention. Gathering feedback from participants who were not exposed to the pretest, intervention, and posttest may have yielded different insights. Furthermore, the follow up phone interviews relied on self-report, without gaining any information about actual teacher behavior. Systematic observations provide an alternative to gather information about actual teacher practices. However, the "white coat effect" may impact teacher behavior in this area. Future research should explore other techniques to gather information about early childhood teacher practices in response to students' internalizing problems.

### **Future Research**

Since few inquiries exist in the literature about teacher beliefs and practices related to internalizations in early childhood, the current study serves as a starting point for an emerging field. Future research can explore remedies for the current study's limitations by refining measures and increasing sample size while preserving heterogeneity.

Since the PI was a school psychology intern at only one of the sites in which this investigation was conducted, exploring the PI's role as staff person versus outside consultant, may yield different results. Compared to an outside consultant, would there be a significant difference in teacher's self-perceptions of preparedness if PD is given by an onsite school psychologist who may be available for follow-up consultation? Having onsite personnel conduct PD may increase

implementation of strategies and improve communication between educators and mental health providers. Further exploration can include implementing the intervention with larger samples from different educational settings (i.e., private preschools, public early childhood centers, public elementary schools). Additional observational data, using a systematic coding system, and collecting observations from a higher percentage of participants, could inform practitioners about current teacher practices. The PD itself can be modified to include additional strategies to empower teachers to implement interventions at Tiers I and II independently, without needing the assistance of school psychologists. For instance, teaching educators to apply Cognitive Behavioral Therapy practices in the classroom such as relaxation techniques, or other teacher led activities may help address issues like test anxiety. Long-term follow up data can shed light on whether the intervention has lasting effects on teacher beliefs related to internalizing disorders in early childhood. The interviews in the current investigation discussed barriers to consulting with onsite staff. One way to overcome the barriers is to examine the different ways school psychologists and teachers perceive problem behaviors. As discussed previously, there were inconsistent ratings of behavioral typicality and symptom severity between raters (i.e., school psychology graduate students) and participants (i.e., teachers). Further exploring the differences in perceptions, through qualitative and quantitative inquiry, may yield insights to help facilitate collaboration. School administrators may offer their own perspectives about strategies to foster effective collaboration between school psychologists and teachers. This can lead to brainstorming solutions for providing adequate training and support for educators. Expanding the current findings has the potential to impact teaching training, teacher practice, and school-wide mental health supports.

## Implications

Internalizing disorders such as anxiety and depression can manifest in young children (Luby, 2010; Spence, Rapee, McDonald, & Ingram, 2001). Consequences for suffering from these disorders can be quite damaging for children resulting in academic difficulties and a higher risk for developing internalizing problems in later childhood (Lavigne, Arend, Rosenbaum et al., 1998; Fantuzzo, Bulotsky, McDermott, Mosca, & Lutz, 2003). Children experience trauma everyday ranging from personal tragedies (i.e., house fire, witnessing domestic violence) to community disasters (i.e., natural disasters). The impact on children's social- emotional functioning can last beyond the initial event. Providing these children with the support they need by referring them to independent mental health providers is inefficient and unrealistic. Since teachers are the first professionals who spend a significant amount of time with the child outside of the home, it makes sense to provide them with tools to help identify and prevent internalizing disorders. Training is an effective way to increase teachers' awareness about mental health issues for their students (Heisner & Lederberg, 2011).

The results of the current study may serve as a wake-up call for teacher education programs. The topic of internalizing problems in early childhood is not only an area of teacher interest, but also is an area in which many teachers feel unprepared. As a result, this topic needs to be addressed in teacher preparation courses be added to an existing course teachers are required to take. Providing teachers with information and strategies about internalizing disorders increases their feelings of preparedness. Teacher programs, school districts, and other educators can use the framework of the current study as a model to present this relevant material to teachers. The role of the school psychologist includes providing staff with support for ongoing issues and presenting relevant research (National Association of School Psychologists, 2010). Current

educational trends are moving towards implementation of Response to Intervention (RTI) and Positive Behavioral Supports (PBS) to address social and behavioral concerns. The current study's intervention presents material within a prevention framework that is easily applicable to the three-tiered RTI framework as well as PBS. Utilizing the expertise of the school psychologists in implementing training to their colleagues within buildings and districts is also a cost efficient method to provide PD. Alternatives for districts to provide this type of teacher training involve purchasing costly programs or hiring consultants. As RTI implementation becomes nationwide policy, schools may be more likely to utilize a three-tiered framework to present all areas of intervention. Therefore, due to cost and feasibility, when mandating PD, schools may be keen on implementing PD like those described in the current investigation—low cost and facilitated by a school faculty member (i.e., the school psychologist).

## **Conclusion**

The purpose of the current dissertation was to propose and evaluate a PD intervention designed to increase teachers' awareness of internalizing disorders in early childhood. There is significant evidence that internalizing disorders such as depression, anxiety, and PTSD can occur in very young children and have lasting effects on their social-emotional well-being as well as their academic success. There are not many studies that explore early childhood teachers' beliefs and practices related to these behaviors in youngsters. However, a plethora of research does exist exploring teacher beliefs and practices about externalizing symptoms in childhood. The current study sought to contribute to the literature an intervention designed to raise teacher awareness and provide training on this topic. The study followed a pretest-intervention-posttest design, comparing teachers' responses following two versions of a PD conducted by a school psychology intern (Strategies and Information) to a Control group. Overall, teachers did not

report prior training on issues related to emotional symptoms in youth. Results indicated that the two intervention groups had a significant impact on teachers' feelings of preparedness to tackle depression, anxiety, and PTSD in their classrooms. The increased preparedness did not differ significantly between intervention groups. Results indicated that participants benefit from a one time PD on the topic of internalizing disorders in early childhood. Implications include utilizing school psychologists' expertise to provide in-service training to teachers who report a lack of knowledge and competence in the area of early childhood internalizing disorders.

## Appendix A

### Recruitment Materials

T- TAD! (Teachers: Tackle Anxiety and Depression!)

Danielle Guttman, Principal Investigator

Helen L. Johnson, PhD, Faculty Advisor

### Project Description

Within the psychological and educational communities, there has been increasing awareness that young children demonstrate internalizing problems, like anxiety, depression, and PTSD much younger than previously thought. Even in preschool, children can show symptoms of anxiety and depression. Internalizing problems can have long-term effects, sticking with youngsters for years and impacting school readiness, performance, and self-confidence.

Early childhood (Prekindergarten through Grade 2) teachers are in position to play a critical role in identifying children who are experiencing mental health issues. Although most teachers are in tune with their students and notice their struggles, teachers may feel underprepared to deal with these problems in their students. The purpose of this study is to explore tools that teachers can use to identify children who may be showing signs of internalizing problems, as well as classroom strategies that teachers can use to help these children overcome their difficulties.

The study will be conducted in one two hour session focusing on professional development. The sessions will be conducted by Danielle Guttman, a doctoral student in the School Psychology Program at the Graduate Center of the City University of New York. In consultation with the participating school and teachers, these sessions will be scheduled either during the school day, during lunch-time, and/or afterschool. The professional development workshops will be presented via Powerpoint presentation and will include both lecture and discussion. Refreshments will be served.

Before and after the professional development sessions, teachers will be asked to fill out short confidential questionnaires. The professional development sessions will include information from current research about effective practices. During the two professional development sessions, teachers will learn how internalizing problems look in the young children they work with. Teachers will be taught how to keep track of specific concerning behaviors linked to anxiety and/or depression. Classroom and curriculum strategies and case studies will be provided for teachers so they are better prepared to help these students.

Additionally, a subset of teachers may be observed (for 20 minutes) before the intervention. One-on-one interviews with another subset of teachers may be conducted after the intervention to further examine their understanding of anxiety and depression in little ones.

## Appendix B

### Vignettes

	Form	A		B		C		D	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post
<i>Depression Vignette</i>									
<i>You observe that one of your students; 7-year old Carla does not smile like the other children in your classroom. During lessons, she has a blank expression. Carla plays with toys but she does not appear to gain the same joy as others. Her grandmother who lived with her and her mother passed away three months ago. She used to drop her off and pick her up. During the day, you find yourself giving more attention to other students who are fighting or crying, compared to Carla who is usually quiet. Once, when Carla was absent, at the end of the busy day, you found yourself not noticing her absence. Carla's verbal skills are as developed as her peers, but she does not talk much at school. Carla's mother has noticed these behaviors at home and attributes it to the loss of her grandmother. She is often tired at school and tends to oversleep at home. When you speak to her previous teachers, you hear that Carla was an outgoing youngster who enjoyed playing with blocks and drawing.</i>		✓			✓		✓	✓	
<i>During instruction, 6-year old Pricilla has a blank stare and it looks like she's not paying attention. She doesn't seem to smile like other kids. At playtime, she joylessly picks up a toy and goes to play in the corner. When other kids approach Pricilla, she follows their lead and plays with them, and seems amused. Pricilla appears shy and does not initiate conversation. Pricilla's academic skills are developing on track. Pricilla does not have a real presence in the classroom. When Pricilla was out sick, you found yourself not noticing. In your mind, Pricilla just does not seem to get as much out of life as the other children in the classroom. For instance, when other children laugh during story time, Pricilla seems more reserved and only shares a smile. Pricilla often complains of difficulty sleeping at night, and is frequently sleepy in school. You just found out that Pricilla's parents are adopting a child. From your interactions with them, Pricilla's parents are quiet yet loving toward Pricilla. They say that having another child around will help her overcome her "shyness."</i>			✓	✓		✓			✓

<i>Anxiety Vignettes</i>	Form	A Pre	Post	B Pre	Post	C Pre	Post	D Pre	Post
<i>James, a five-year old in your class is the youngest of four children and lives with his mother and father. Since the beginning of the year, James has had difficulties during transitions and has trouble adjusting to the new expectations of a task saying, "Please, wait, not yet!" He rarely initiates social contact with peers but when others invite James to play a game he participates willingly and seems to enjoy himself. However, if there is a new game, James become flushed saying, "I can't play it, I don't know how!" James is still often visibly distressed and becomes teary eyed when his mother leaves him at school, and needs extra reminders to start the day. During the school day, he frequently complains of stomachaches, and asks to go home. Because of his frequent complaints he was taken to his family doctor for an examination. Tests showed that he has no stomach ailments, and he is in good health.</i>		✓			✓	✓			✓
<i>Six-year old Pete seems to have difficulty with changes during the school day. He has trouble saying goodbye to his father during drop-off and frequently cries for a few minutes. He often asks "How long until daddy comes?" During instruction, when it is time to transition between academic topics and Pete has not yet finished his work, he gets upset and says, "You havta let me finish this!" At recess, Pete plays with friends but has trouble when other children start playing a new game that he doesn't know. In those instances, Pete gives up quickly saying, "I'm no good at that game!" Pete often asks to see the nurse complaining his head hurts, and has missed some academic work. His pediatrician notes that despite these complaints, he is has a clean bill of health. Pete lives with his parents and older sister.</i>			✓	✓				✓	✓

Form	A		B		C		D	
PTSD Vignette	Pre	Post	Pre	Post	Pre	Post	Pre	Post
<p>Tyson's family was hit hard by a recent hurricane. They stayed in their home as it was flooded and needed to be evacuated by boat. His home is now badly damaged. For the past six months, six-year old Tyson and his family have lived with his uncle down the road. When playing in class, he withdraws from others. Instead, he prefers to play alone with the classroom dollhouse where he often reenacts the events of his family narrowly escaping floodwaters. Tyson often comes into school lethargic and his mother complains that he is not sleeping well due to nightmares. Before the storm, Tyson had no trouble separating from his mother at drop off. But now, he uncharacteristically cries when his mother leaves. When it rains a lot, you notice that he is especially antsy in his seat, and has trouble paying attention in class. Instead, he looks out of the window, and cries, saying that he wishes the rain would just stop.</p>		✓	✓		✓			✓
<p>At the start of the school year, seven-year-old Robert was an outgoing child, separated easily from his mother, and was eager to engage in play with his peers. Robert's family's home was totally destroyed by a recent tornado. For the past few months Robert, his mom, and sister have lived with his aunt across town. At drop off in the morning, Robert almost always cries and protests as his mother leaves. When playing in class, he withdraws from participating with others as he used to. Instead, he prefers action figures as he often reenacts the tornado, as he builds a house of blocks and knocks it down. When you talk to Robert's mom about his falling asleep during class, she says he can't sleep through the night. On days when there is a fire drill, Robert cries and has trouble calming down. On these days it is hard for him to concentrate for the rest of the day.</p>	✓			✓			✓	✓

## Appendix C

Project T-TAD-II !

ID #: \_\_\_\_\_ **FORM A**

**Questionnaire (before Professional Development sessions).** *Please answer the following questions. All responses will be kept confidential.*

1. How prepared do you feel to deal with children who may be depressed? Preparedness here refers to having the knowledge to deal with, or knowing which resources to use to enable children to better cope.
  - a. Very well prepared
  - b. Well prepared
  - c. Moderately prepared
  - d. Poorly prepared
  - e. Very poorly prepared
2. How prepared do you feel to deal with children who may be anxious?
  - a. Very well prepared
  - b. Well prepared
  - c. Moderately prepared
  - d. Poorly prepared
  - e. Very poorly prepared
3. How prepared do you feel to deal with children who may be suffering from Posttraumatic Stress Disorder (PTSD)?
  - a. Very well prepared
  - b. Well prepared
  - c. Moderately prepared
  - d. Poorly prepared
  - e. Very poorly prepared

II. Please read the following examples, and respond to the questions as if these were students in your classroom.

#### VIGNETTE ONE

*You observe that one of your students; 7-year old Carla does not smile like the other children in your classroom. During lessons, she has a blank expression. Carla plays with toys but she does not appear to gain the same joy as others. Her grandmother who lived with her and her mother passed away three months ago. She used to drop her off and pick her up. During the day, you find yourself giving more attention to other students who are fighting or crying, compared to Carla who is usually quiet. Once, when Carla was absent, at the end of the busy day, you found yourself not noticing her absence. Carla's verbal skills are as developed as her peers, but she does not talk much at school. Carla's mother has noticed these behaviors at home and attributes it to the loss of her grandmother. She is often tired at school and tends to oversleep at home. When you speak to her previous teachers, you hear that Carla was an outgoing youngster who enjoyed playing with blocks and drawing.*

i. How serious do you think Carla's problem is?

- a. Severe
- b. Moderate
- c. Mild

ii. Is this behavior typical for a child Carla's age?

- a. Yes
- b. No
- c. Why or why not?

iii. What would you do next for Carla? From the list below, please rank in order of importance from 1 to 5 (1 being the most important thing to do next, 2 being less important, and 5 being the least important). Please use each number only once.

- \_\_\_ Contact parents
- \_\_\_ Adjust my own interactions with the child
- \_\_\_ Monitor behavior of child
- \_\_\_ Encourage child to interact with other kids
- \_\_\_ Discuss this topic with the whole class (i.e., read a book about topic).

What else would you do?

iv. How prepared do you feel to deal with Carla's behavior?

- a. Very well prepared
- b. Well prepared
- c. Moderately prepared
- d. Poorly prepared
- e. Very poorly prepared

## VIGNETTE 2

*James, a five-year old in your class is the youngest of four children and lives with his mother and father. Since the beginning of the year, James has had difficulties during transitions and has trouble adjusting to the new expectations of a task saying, "Please, wait, not yet!" He rarely initiates social contact with peers but when others invite James to play a game he participates willingly and seems to enjoy himself. However, if there is a new game, James become flushed saying, "I can't play it, I don't know how!" James is still often visibly distressed and becomes teary eyed when his mother leaves him at school, and needs extra reminders to start the day. During the school day, he frequently complains of stomachaches, and asks to go home. Because of his frequent complaints he was taken to his family doctor for an examination. Tests showed that he has no stomach ailments, and he is in good health.*

i. How serious do you think James' problem is?

- d. Severe
- e. Moderate
- f. Mild

ii. Is this behavior typical for a child James' age?

- a. Yes
- b. No
- c. Why or why not?

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iii. What would you do next for James? From the list below, please rank in order of importance from 1 to 5 (1 being the most important thing to do next, 2 being less important, and 5 being the least important). Please use each number only once.

- \_\_\_ Contact parents
- \_\_\_ Adjust my own interactions with the child
- \_\_\_ Monitor behavior of child
- \_\_\_ Encourage child to interact with other kids
- \_\_\_ Discuss this topic with the whole class (i.e., read a book about topic).

What else would you do?

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iv. How prepared do you feel to deal with James' behavior?

- a. Very well prepared
- b. Well prepared
- c. Moderately prepared
- d. Poorly prepared
- e. Very poorly prepared

## VIGNETTE 3

*At the start of the school year, seven-year-old Robert was an outgoing child, separated easily from his mother, and was eager to engage in play with his peers. Robert's family's home was totally destroyed by a recent tornado. For the past few months Robert, his mom, and sister have lived with his aunt across town. At drop off in the morning, Robert almost always cries and protests as his mother leaves. When playing in class, he withdraws from participating with others as he used to. Instead, he prefers action figures as he often reenacts the tornado, as he builds a house of blocks and knocks it down. When you talk to Robert's mom about his falling asleep during class, she says he can't sleep through the night. On days when there is a fire drill, Robert cries and has trouble calming down. On these days it is hard for him to concentrate for the rest of the day.*

i. How serious do you think Robert's problem is?

- a. Severe
- b. Moderate
- c. Mild

ii. Is this behavior typical for a child Robert's age?

- a. Yes
- b. No
- c. Why or why not?

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iii. What would you do next for Robert? From the list below, please rank in order of importance from 1 to 5 (1 being the most important thing to do next, 2 being less important, and 5 being the least important). Please use each number only once.

- \_\_\_ Contact parents
- \_\_\_ Adjust my own interactions with the child
- \_\_\_ Monitor behavior of child
- \_\_\_ Encourage child to interact with other kids
- \_\_\_ Discuss this topic with the whole class (i.e., read a book about topic).

What else would you do?

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iv. How prepared do you feel to deal with Robert's behavior?

- a. Very well prepared
- b. Well prepared
- c. Moderately prepared
- d. Poorly prepared
- e. Very poorly prepared

III. BACKGROUND INFORMATION (Please remember that all responses will remain confidential).

1. What is your sex?
  - a. Male
  - b. Female
2. What is your age?  
\_\_\_\_\_
3. What is your racial/ethnic background?
  - a. Asian/Asian American
  - b. Black/African American
  - c. Hispanic/Hispanic American
  - d. Native American
  - e. White/Caucasian
  - f. Other: \_\_\_\_\_
4. What ages do you teach? Circle all that apply.
  - a. 0-2
  - b. 2-3
  - c. 4-5
  - d. 5-6
  - e. Other: \_\_\_\_\_
5. Are there children with special needs in your classroom?
  - a. Yes
  - b. No
6. In what type of school do you work?
  - a. Private
  - b. Public
  - c. Other
7. What is the ethnic breakdown of the students in your classroom:
 

\_\_\_\_% Asian/Asian American

\_\_\_\_% Black/African American

\_\_\_\_% Hispanic/Hispanic American

\_\_\_\_% Native American

\_\_\_\_% White/Caucasian

\_\_\_\_% Other: \_\_\_\_\_
8. What is the social status of a typical family at your school?
  - a. Low socioeconomic status
  - b. Middle class/socioeconomic status
  - c. High socioeconomic status
  - d. Other: \_\_\_\_\_
  - e. \_\_\_\_\_
9. What is your highest level of education/degree?
  - a. High School
  - b. Associate's
  - c. Bachelor's
  - d. Master's
  - e. Educational Specialist
  - f. Other: \_\_\_\_\_

10. How many years have you been teaching in a school setting?

\_\_\_\_\_

11. How many years have you been employed at your current school?

\_\_\_\_\_

12. What types of teaching certification(s) do you hold?

\_\_\_\_\_

13. What is your current job title?

- a. Administrator
- b. Teacher
- c. Teacher Assistant
- d. Special Education Aide
- e. Other: \_\_\_\_\_

14. Have you ever taken a course/training program that covered social-emotional issues like sadness and withdrawal in early childhood?

- a. Yes  
Please

describe \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

- b. No

15. Have you received any training about working with students who may be having trouble following Superstorm Sandy?

- a. Yes  
Please

describe \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

- b. No

16. Do you have professional experience working with children exhibiting:

- a. Depression?
  - i. Yes
  - ii. No
- b. Anxiety?
  - i. Yes
  - ii. No
- c. PTSD?
  - i. Yes
  - ii. No

17. Do you have personal experience (self, family members, friends) with

- a. Depression?
  - i. Yes
  - ii. No
- b. Anxiety?
  - iii. Yes
  - iv. No
- c. PTSD?
  - v. Yes
  - vi. No

*Thank you for your participation!*

## Appendix D

Project T-TAD

ID: \_\_\_\_ **FORM A**

**Questionnaire after Professional Development Sessions.** *Please answer the following questions. All responses will be kept confidential.*

1. How prepared do you feel to deal with children who may be depressed. Preparedness here refers to having the knowledge to deal with, or knowing which resources to use to enable children to better cope.
  - a. Very well prepared
  - b. Well prepared
  - c. Moderately prepared
  - d. Poorly prepared
  - e. Very Poorly
2. How prepared do you feel to deal with children who may be anxious.
  - a. Very well prepared
  - b. Well prepared
  - c. Moderately prepared
  - d. Poorly prepared
  - e. Very Poorly
3. How prepared do you feel to deal with children who may be suffering from Posttraumatic Stress Disorder (PTSD)?
  - f. Very well prepared
  - g. Well prepared
  - h. Moderately prepared
  - i. Poorly prepared
  - j. Very poorly prepared

Please read the following examples, and respond to the questions as if these were students in your classroom.

#### VIGNETTE ONE

*During instruction, 6-year old Pricilla has a blank stare and it looks like she's not paying attention. She doesn't seem to smile like other kids. At playtime, she joylessly picks up a toy and goes to play in the corner. When other kids approach Pricilla, she follows their lead and plays with them, and seems amused. Pricilla appears shy and does not initiate conversation. Pricilla's academic skills are developing on track. Pricilla does not have a real presence in the classroom. When Pricilla was out sick, you found yourself not noticing. In your mind, Pricilla just does not seem to get as much out of life as the other children in the classroom. For instance, when other children laugh during story time, Pricilla seems more reserved and only shares a smile. Pricilla often complains of difficulty sleeping at night, and is frequently sleepy in school. You just found out that Pricilla's parents are adopting a child. From your interactions with them, Pricilla's parents are quiet yet loving toward Pricilla. They say that having another child around will help her overcome her "shyness."*

v. How serious do you think Pricilla's problem is?

- g. Severe
- h. Moderate
- i. Mild

vi. Is this behavior typical for a child Pricilla's age?

- a. Yes
- b. No
- c. Why or why not?

vii. What would you do next for Pricilla? From the list below, please rank in order of importance from 1 to 5 (1 being the most important thing to do next, 2 being less important, and 5 being the least important). Please use each number only once.

- \_\_\_ Contact parents
- \_\_\_ Adjust my own interactions with the child
- \_\_\_ Monitor behavior of child
- \_\_\_ Encourage child to interact with other kids
- \_\_\_ Discuss this topic with the whole class (i.e., read a book about topic).

What else would you do?

viii. How prepared do you feel to deal with Pricilla's behavior?

- a. Very well prepared
- b. Well prepared
- c. Moderately prepared
- d. Poorly prepared
- e. Very poorly prepared

## VIGNETTE 2

*Six-year old Pete seems to have difficulty with changes during the school day. He has trouble saying goodbye to his father during drop-off and frequently cries for a few minutes. He often asks "How long until daddy comes?" During instruction, when it is time to transition between academic topics and Pete has not yet finished his work, he gets upset and says, "You havta let me finish this!" At recess, Pete plays with friends but has trouble when other children start playing a new game that he doesn't know. In those instances, Pete gives up quickly saying, "I'm no good at that game!" Pete often asks to see the nurse complaining his head hurts, and has missed some academic work. His pediatrician notes that despite these complaints, he is has a clean bill of health. Pete lives with his parents and older sister.*

i. How serious do you think Pete's problem is?

- j. Severe
- k. Moderate
- l. Mild

ii. Is this behavior typical for a child Pete's age?

- a. Yes
- b. No
- c. Why or why not?

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iii. What would you do next for Pete? From the list below, please rank in order of importance from 1 to 5 (1 being the most important thing to do next, 2 being less important, and 5 being the least important). Please use each number only once.

- \_\_\_ Contact parents
- \_\_\_ Adjust my own interactions with the child
- \_\_\_ Monitor behavior of child
- \_\_\_ Encourage child to interact with other kids
- \_\_\_ Discuss this topic with the whole class (i.e., read a book about topic).

What else would you do?

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iv. How prepared do you feel to deal with Pete's behavior?

- a. Very well prepared
- b. Well prepared
- c. Moderately prepared
- d. Poorly prepared
- e. Very poorly prepared

## VIGNETTE 3

*Tyson's family was hit hard by a recent hurricane. They stayed in their home as it was flooded and needed to be evacuated by boat. His home is now badly damaged. For the past six months, six-year old Tyson and his family have lived with his uncle down the road. When playing in class, he withdraws from others. Instead, he prefers to play alone with the classroom dollhouse where he often reenacts the events of his family narrowly escaping floodwaters. Tyson often comes into school lethargic and his mother complains that he is not sleeping well due to nightmares. Before the storm, Tyson had no trouble separating from his mother at drop off. But now, he uncharacteristically cries when his mother leaves. When it rains a lot, you notice that he is especially antsy in his seat, and has trouble paying attention in class. Instead, he looks out of the window, and cries, saying that he wishes the rain would just stop.*

i. How serious do you think Tyson's problem is?

- m. Severe
- n. Moderate
- o. Mild

ii. Is this behavior typical for a child Tyson's age?

- a. Yes
- b. No
- c. Why or why not?

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iii. What would you do next for Tyson? From the list below, please rank in order of importance from 1 to 5 (1 being the most important thing to do next, 2 being less important, and 5 being the least important). Please use each number only once.

- \_\_\_ Contact parents
- \_\_\_ Adjust my own interactions with the child
- \_\_\_ Monitor behavior of child
- \_\_\_ Encourage child to interact with other kids
- \_\_\_ Discuss this topic with the whole class (i.e., read a book about topic).

What else would you do?

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iv. How prepared do you feel to deal with Tyson's behavior?

- a. Very well prepared
- b. Well prepared
- c. Moderately prepared
- d. Poorly prepared
- e. Very poorly prepared

## II. REFLECTION

1. How useful did you find these sessions?

- a. Very useful
- b. Moderately useful
- c. Not useful

2. What could have been done to improve your experience during these sessions?

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3. How did this PD change the way you will handle children in your classroom who display internalizing behaviors?

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4. How likely do you feel that you will share this information with colleagues?

- a. Definitely
- b. Very Probably
- c. Probably
- d. Possibly
- e. Probably Not
- f. Very Probably Not

*Thank you for your participation!*

## Appendix E

### Interview Questions

1. In your teaching experience, have you encountered children who appear to be experiencing depression, anxiety, or PTSD?
2. If so, please describe one example. How did you handle it? Were you satisfied with what you did? What might you do differently next time?
3. Do you feel prepared to tackle anxiety/PTSD/depression? How so?
4. What barriers within your school (such as time, focus on other issues) do you feel exist to address mental health issues in schools?
5. What type of training do you wish you had that you did not receive in training programs related to students' mental health issues?
6. What kind of supports does your school offer for children dealing who are displaying anxiety/depression?
7. How useful are these school policies/supports?
8. What would you like your school to do differently to tackle these issues?
9. After the sessions, do you find that you have changed anything in your approach to handling internalizing symptoms in your classroom-based on the PD sessions?
10. Let's revisit some of your responses in the posttest, (read one vignette back to them, and read them back their response) did you think that \_\_\_ suffered from anxiety, depression, or both?
  - a. In what way?

## Appendix F

### Strategies Intervention Presentation Outline

#### **T-TAD!**

#### **Teachers: Tackle Anxiety and Depression!**

Danielle Guttman

City University of New York Graduate School and University Center

Can young children be depressed, anxious or suffer from posttraumatic stress disorder?

Based on your experiences . . .

- What does depression look like in early childhood?
- What does anxiety look like in early childhood?
- What does Posttraumatic Stress Disorder look like in early childhood?
- Where have you seen this? What does it look like in your experiences?

#### Introduction

- Internalizing vs. Externalizing behaviors
- *Internalizing symptoms may go unnoticed in the classroom*

#### Symptoms of Depression

- *Diminished interest or pleasure in developmentally appropriate activities*
- *Reduced capacity to protest (may seem apathetic)*
- *Reduced repertory of social interactions*
- *Emotional withdrawal*
- *Lethargic*
- *Sad facial expression*
- *Regression in skills*
- *Excessive whining*
- *Change in sleep patterns*
- *Weight loss*
- *Regression in developmental milestones*

#### Symptoms of Anxiety

- *Multiple fears*
- *Specific fears*
- *Limited play repertory*
- *Difficulty with transitions between activities*
- *Reckless and defiant behavior*
- *Excessive stranger anxiety*
- *Excessive separation anxiety*
- *Excessive inhibition due to anxiety*
- *Lack of impulse control*

### Symptoms of PTSD

- *Preoccupied with the event*
- *Compulsively reenacting the event in play*
- *Exaggerated startle response*
- *Flashbacks*
- *Temporary loss of previously acquired developmental skills, such as talking or toileting*
- *Increased irritability, outbursts of anger or extreme fussiness, or temper tantrums*
- *Increased social withdrawal*
- *Aggression toward peers, adults, or animals*
- *Diminished interest in significant activities, including play, social interactions, and daily routines*
- *Repeated nightmares; night terrors*
- *Fear of the dark, fear of toileting alone, and other new fears*

What can we do?

### Pyramid Model

- Primary Prevention: Nurturing and Responsive Relationships; High Quality supportive environments;
- Secondary Prevention: Targeted Social Emotional Supports
- Tertiary Prevention: Intensive Intervention

### Response to Intervention

#### Positive behavior supports

- Use the pyramid framework to promote appropriate behavior through positive reinforcement
- Requires collection of information
  - to identify children who are in need of support
  - to determine the effectiveness of interventions

### Comparison of Three Approaches

<b>Approaches: Levels:</b>	<b>Prevention Model</b>	<b>Response to Intervention (RTI)</b>	<b>Positive Behavior Supports (PBS)</b>
Level 1: Intervention given to all students	Primary Prevention: Supports for everyone designed to provide skills to ward off problem	Tier I: Supports available to all students	Tier I: Behavioral expectations stated for entire population
Level 2: Intervention given to students showing difficulty	Secondary Prevention: Provide more supports for those at-risk for developing problem	Tier II: Short-term evidence based intervention	Tier II: Interventions geared towards groups of students exhibiting moderate behavior problems
Level 3: Intensive intervention for those who are still not responding	Tertiary Prevention: Intervention tailored to manage more serious manifestations	Tier III: More intensive evidence based intervention	Tier III: Individualized interventions for students

Behavior Recording Sheet

Name of child:

Age of child:

Name/Title of Informant:

Description of problem behavior (e.g., "During play, child withdraws from others and sits alone without playing while watching others play," or "During play, child sits alone and plays independently:" or "When child makes a mistake or falls, it takes him/her much longer than his/her peers to stop crying or calm down."):

Date:	Level of Intensity of Behavior Circle One:			Time of Day: Circle all that apply:	Notes:
M	Sometimes (1-2 times during day)	Often (3-4 times during day)	Most of the day (5-6 times during day)	AM/ Before/After Other:	PM Snack/meal
T	Sometimes (1-2 times during day)	Often (3-4 times during day)	Most of the day (5-6 times during day)	AM/ Before/After Other:	PM Snack/meal
W	Sometimes (1-2 times during day)	Often (3-4 times during day)	Most of the day (5-6 times during day)	AM/ Before/After Other:	PM Snack/meal
Th	Sometimes (1-2 times during day)	Often (3-4 times during day)	Most of the day (5-6 times during day)	AM/ Before/After Other:	PM Snack/meal
F	Sometimes (1-2 times during day)	Often (3-4 times during day)	Most of the day (5-6 times during day)	AM/ Before/After Other:	PM Snack/meal

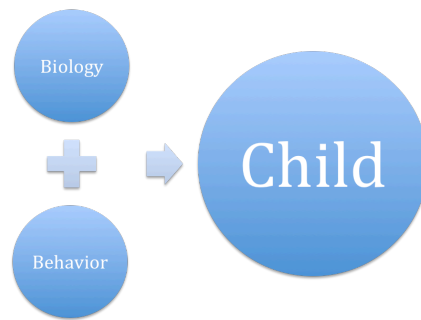
## Don't Discount Cultural Experiences!

- Cultural differences in behavioral expectations
- Value of independence
- Social norms
- Parental involvement
- Language differences
- When ELL children are learning English, they may appear selectively mute (Elizal Utnick, 2007).
- *Our experiences always impact our development*

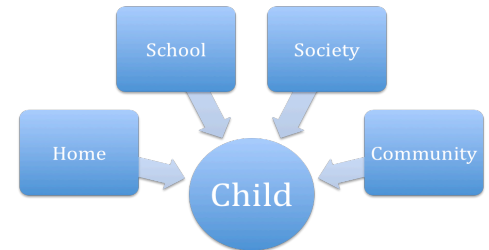
## Questions to ask when worried about a child ...

- What would you ask?

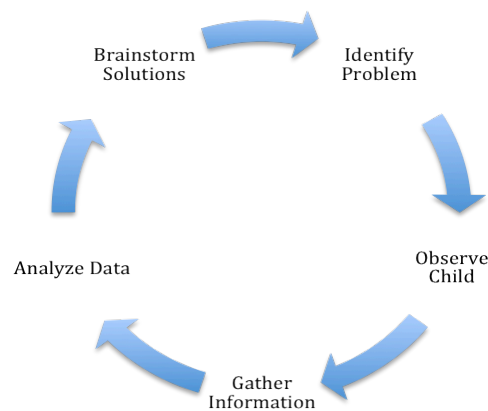
## Medical Model



## Ecological Approach



## Problem Solving Approach vs. Medical Model



### Post-Traumatic Strategies

- Listen and Talk
- Recognize Fears
- Understand Challenging Behavior
- Maintain Routines

### Head Start Domain 6: Social and Emotional Development Domain Elements:

- Self-Concept
- Self-Control
- Cooperation
- Social Relationships
- Knowledge of Families and Communities
- "Domain 6: Social and Emotional Development." The Head Start Leaders Guide to Positive Child Outcomes. HHS/ACF/ACYF/HSB. 2003. English.

### Self Concept: Classroom Strategies

- Ensure that learning environment welcomes each child reflecting her identity/culture
- Display children's work throughout classroom
- Encourage children to share info about their lives
- Allow children to demonstrate strengths
- Encourage and facilitate autonomy
- Provide opportunities for success
- Use specific praise and feedback

### Self-Control: Classroom Strategies

- Visual reminders
- Beware of transitions!
- Decrease wait time during transitions by decreasing "whole group" transitions.
- Make transitions active times by saying "Hop to your cubby like a rabbit" or "Let's sing *Wheels on the Bus*."
- Use a consistent cue to signal a transition such as, clapping your hands, singing a song, or ringing a bell."
- Give clear directions.
- Allowing children to have appropriate choices.
- Integrate children's preferences into daily activities
- "Catch children being good!"
- Create a stimulating learning environment
- Foster positive relationships with each child
- "Work with children to establish a few simple group rules: Take care of other people, take care of yourself, and take care of the Head Start setting. "
- Encourage child to express feelings and solve problems

### Cooperation: Classroom Strategies

- Allow children to participate in a variety of types of play
- Use cooperative language

- Demonstrate how to use group discussions to solve conflicts
- Read books that demonstrate appropriate skills
- Foster teamwork

#### Social Relationships: Classroom Strategies

- Foster relationships with families
- Foster a caring community
- Draw attention to feelings of others
- Plan cooperative activities for children who are having trouble making friends
- Teach initiation skills to children who are being excluded in play

#### Knowledge of Families and Communities: Strategies

- Invite families to participate in school activities
- Incorporate children's home culture into school activities
- Incorporate culture and community into curriculum
- Foster engagement between school and community

#### Discussion Questions

1. What additional questions do you have about anxiety and depression in young children?
2. What resources are available in your settings? Consultants? On staff people to help?
3. How is socioemotional learning and development addressed in the curriculum of your classrooms?
4. What kind of training did you receive for dealing with these issues? Child development courses? How did you learn about it if you did? Do you do ongoing professional development for emotional issues related to children?
5. What additional resources would you like to have access to?

#### Booklist Handout

Thank you so much for your attention and participation.  
Please fill out one last survey before you go.

#### References/Resources for Presentation

Domain 6: Social and Emotional Development . (2003). The Head Start Leaders Guide to Positive Child Outcomes. HHS/ACF/ACYF/HSB. Retrieved from [http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/eecd/Domains%20of%20Child%20Development/Social%20and%20Emotional%20Development/edudev\\_art\\_00016\\_061705.html#Conceptin](http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/eecd/Domains%20of%20Child%20Development/Social%20and%20Emotional%20Development/edudev_art_00016_061705.html#Conceptin)

Technical Assistance Center on Social Emotional Intervention. (2011). Learn about the Pyramid Model. Retrieved from [http://www.challengingbehavior.org/do/pyramid\\_model.htm](http://www.challengingbehavior.org/do/pyramid_model.htm)

Heroman, C. & Bilmes, J. (2005). <http://www.teachingstrategies.com/content/pageDocs/Helping-Children-Rebound-PS-2012.pdf>

Minnesota Association for Children's Mental Health [http://www.macmh.org/publications/fact\\_sheets/fact\\_sheets.php](http://www.macmh.org/publications/fact_sheets/fact_sheets.php)

Substance Abuse and Mental Health Services Administration  
(.) [http://www.samhsa.gov/MentalHealth/Tips\\_Talking\\_to\\_Children\\_After\\_Disaster.pdf](http://www.samhsa.gov/MentalHealth/Tips_Talking_to_Children_After_Disaster.pdf)

## Appendix G

### Information Intervention Presentation Outline

T-TAD!

Teachers: Tackle Anxiety and Depression!

Danielle Guttman, MEd.

City University of New York Graduate School and University Center

Can young children be depressed, anxious or suffer from posttraumatic stress disorder?

Based on your experiences . . .

- What does depression look like in early childhood?
- What does anxiety look like in early childhood?
- What does posttraumatic stress disorder look like in early childhood?
- Where have you seen this? What does it look like in your experiences?

Types of Problem Behaviors

- Internalizing vs. Externalizing
- *What type may go unnoticed in the classroom?*

Symptoms of Depression

- *Diminished interest or pleasure in developmentally appropriate activities*
- *Reduced capacity to protest (may seem apathetic)*
- *Reduced repertory of social interactions*
- *Emotional withdrawal*
- *Lethargic*
- *Sad facial expression*
- *Regression in skills*
- *Excessive whining*
- *Change in sleep patterns*
- *Weight loss*
- *Regression in developmental milestones*

Symptoms of Anxiety

- *Multiple fears*
- *Specific fears*
- *Limited play repertory*
- *Difficulty with transitions between activities*
- *Reckless and defiant behavior*
- *Excessive stranger anxiety*
- *Excessive separation anxiety*
- *Excessive inhibition due to anxiety*
- *Lack of impulse control*

### Symptoms of PTSD

- *Preoccupied with the event*
- *Compulsively reenacting the event in play*
- *Exaggerated startle response*
- *Flashbacks*
- *Temporary loss of previously acquired developmental skills, such as talking or toileting*
- *Increased irritability, outbursts of anger or extreme fussiness, or temper tantrums*
- *Increased social withdrawal*
- *Aggression toward peers, adults, or animals*
- *Diminished interest in significant activities, including play, social interactions, and daily routines*
- *Repeated nightmares; night terrors*
- *Fear of the dark, fear of toileting alone, and other new fears*

### PREVALENCE RATES

- 10-15% of all children will develop an anxiety disorder (Pahl & Barrett, 2010)
- 1/5 teens have had depressive symptoms
- 2% of children can be diagnosed with Depression at any given point (Egger, 2006)
- For children who have experienced a trauma, 6.5- 69 % will develop PTSD (De Young, 2011).
- 86% of children develop some symptoms after a hurricane (Vernberg, La Greca, Silverman, & Prinstein, 1996)

### Risk Factors for Developing Anxiety/Depression

- Maternal depressive and anxious symptoms
- Environmental family stressors
- Difficult/ Slow to warm up temperament
- (Marakovitz, et al., 2011; Côté et al., 2009; Pitzer et al., 2011)

### Risk factors for PTSD

- Low social support,
- Peri-trauma fear (immediately right after),
- Comorbid psychological problem,
- Perceived life threat,
- Social withdrawal,
- Poor family functioning,
- PTSD immediately after,
- Thought suppression.
- Trickey, Siddaway, Meiser-Stedman, Serpell, Field (2012)

### When does shyness become too serious?

- Lasting effects:
- Research shows that anxious children were less academically ready for school compared to their non-anxious peers.

- Research also finds significant relationships between shy temperaments and internalizing symptoms.
- Being depressed or anxious as a youngster increases chances of being anxious or depressed as an adult
- Wood (2007), Karevolf, Roysamb, Ystrom. & Mathiesen (2009), Gilliom & Shaw (2004), Masi et al (2003), Rothbart & Bates (2006)

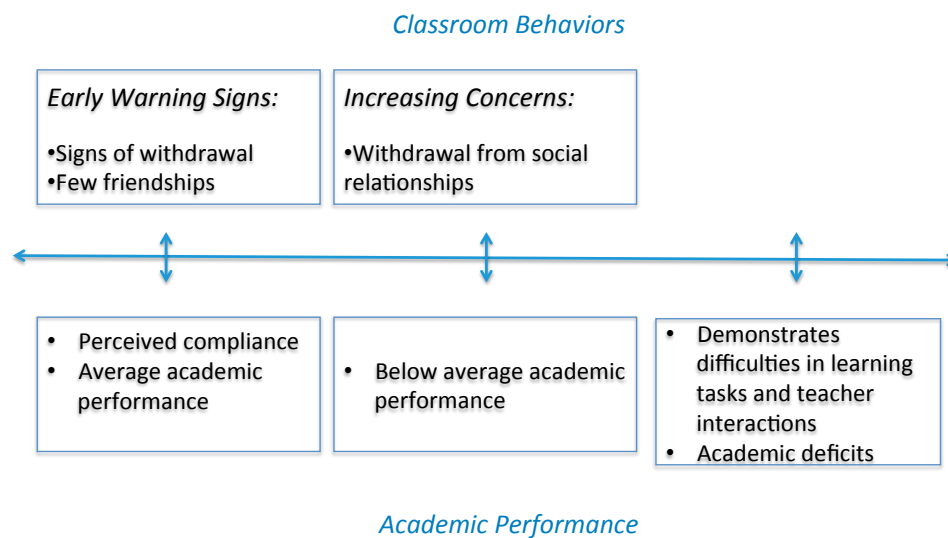
#### Protective Factors/Promoting Resiliency

- At least one positive adult relationship
- Positive peer relationships
- Family stability
- Positive school feelings
- Supportive School climate

#### Don't Discount Cultural Experiences!

- Cultural differences in behavioral expectations
  - Value of independence
  - Social norms
  - Parental involvement
- Language differences
- When ELL children are learning English, they may appear selectively mute (Elizalde-Utnick, 2007).
- *Our experiences always impact our development*

How do teachers view these students?



#### Pyramid Model

- Primary Prevention: Nurturing and Responsive Relationships; High Quality supportive environments;
- Secondary Prevention: Targeted Social Emotional Supports
- Tertiary Prevention: Intensive Intervention

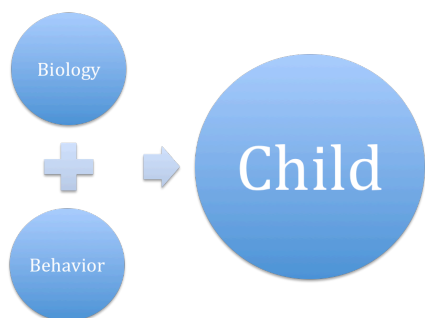
### Response to Intervention

- Positive behavior supports
- Use the pyramid framework to promote appropriate behavior through positive reinforcement
- Requires collection of information
  - to identify children who are in need of support
  - to determine the effectiveness of interventions

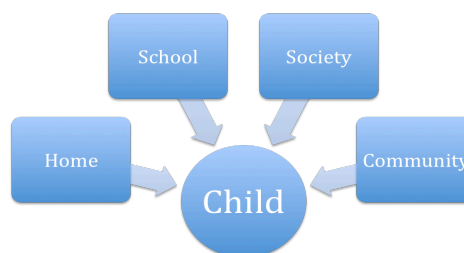
### Comparison of Three Approaches

<b>Approaches: Levels:</b>	<b>Prevention Model</b>	<b>Response to Intervention (RTI)</b>	<b>Positive Behavior Supports (PBS)</b>
Level 1: Intervention given to all students	Primary Prevention: Supports for everyone designed to provide skills to ward off problem	Tier I: Supports available to all students	Tier I: Behavioral expectations stated for entire population
Level 2: Intervention given to students showing difficulty	Secondary Prevention: Provide more supports for those at-risk for developing problem	Tier II: Short-term evidence based intervention	Tier II: Interventions geared towards groups of students exhibiting moderate behavior problems
Level 3: Intensive intervention for those who are still not responding	Tertiary Prevention: Intervention tailored to manage more serious manifestations	Tier III: More intensive evidence based intervention	Tier III: Individualized interventions for students

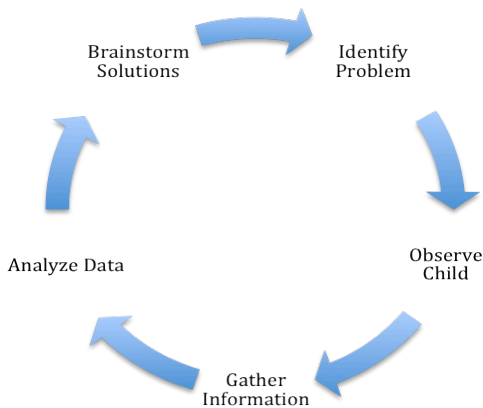
### Medical Model



### Ecological Approach



## Problem Solving Approach vs. Medical Model



Questions to ask when worried about a child ...

- What would you ask?

### Discussion Questions

1. What additional questions do you have about anxiety and depression in young children?
2. What resources are available in your settings? Consultants? On staff people to help?
3. How is socioemotional learning and development addressed in the curriculum of your classrooms?
4. What kind of training did you receive for dealing with these issues? Child development courses? How did you learn about it if you did? Do you do ongoing professional development for emotional issues related to children?
5. What additional resources would you like to have access to?

### Booklist Handout & List of Resources

Thank you so much for your attention and participation. Please fill out a survey before you go.

If you have any additional questions please contact me at [dguttman@gc.cuny.edu](mailto:dguttman@gc.cuny.edu), or 917-690-2289

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## Appendix H

### Running Record of Observation

An observation was conducted for twenty minutes three weeks prior to the intervention. The observation took place during a literacy block. The prekindergarten classroom staff included a lead teacher (Ms. X) and a teaching assistant (Ms. Y), and included seven boys. The routine began with the students sitting on the floor singing the days of week and months led by Ms. X. All students participated except for a student, Vic sitting with Ms. Y in a chair. That student stood up and Ms. Y guided him to his place amongst his peers. The class continued to sing about seasons. Ms. X, praised one student, "Good job!" Vic sang loudly and Ms. X told him, "Calm down." Ms. X tapped a student on the shoulder who was beginning to dance and move about. As another student talked to his peer she reminded him to turn. Ms. X asked another student to go to calendar for lead the next activity as she reminded students to sit nicely. Ms. X asked class "What is the weather like?" One replied, "cloudy." Another student said, "There's a little snow on the ground from last night." Another student said, "My house got flooded last night." Ms. X replied, "I don't think your house got flooded last night." The child then said that his shed was damaged and lost power during Superstorm Sandy. A student identified the date and that the weather was rainy and cloudy. Ms. X told them to stand and called on one student to be the "shaking sillies out leader." They then participate in an activity where they moved in their floor spots and said, "Shake, shake, shake, my sillies out; clap, clap, clap, my crazies away." Vic was yelling the words and Ms. X said, "Excuse me" and paused. The class then continued, "Jump, jump, jump, my giggles away; yawn, yawn, yawn, my sleepies away."

Ms. X transitioned to reading Little Bunny's Easter Egg Surprise by Susan Hood. Six students sat on the floor while Vic stood. Ms. X addressed the class: "I see some people are not sitting the right way." Ms. X started to read the book. Ms. X reminds Vic to remain seated as he stood up and walked around the room. A seventh student entered who had been out of the classroom. He sat on the floor. Another one of the students told other students that they were not doing a good job. As Ms. X read a page of the story, she asked, "How is little bunny feeling?" One student replied "Sad." Ms. X asked, "Why?" One student replied that it was because he had no Easter eggs. Ms. X asked, "What's on his face?" Another student replied, "A frown." Ms. X then asked students what they thought would happen in the story. As she completed the story, all seven students sat on their knees. She asked comprehension questions about the story such as, "Who was he playing with?" and asked for their opinions: "Was that a good book?" Ms. Y then transitioned the class to a new activity, where the TA handed out coloring materials to each student create a bunny. The observation concluded as all students were beginning this new arts and crafts activity.

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