

EXAMINING THE EFFECT OF A SCHOOL-BASED TREATMENT ON ANXIETY
FOR LATINO STUDENTS

by

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A thesis submitted in partial fulfillment
of the requirements for the degree

of

EDUCATION SPECIALIST

in

Psychology

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2018

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ABSTRACT

Examining the Effect of a School-Based Treatment on Anxiety for Latino Students

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This study examined the efficacy of a brief culturally and instructionally modified cognitive behavioral therapy program for five anxious Latino/a youths ages 8-11 years in an elementary school setting. Each student exhibited anxiety in a classroom setting as reported by their teachers and parents or guardians. A noncurrent multiple baseline design was implemented using A-B replications to assess the effects of baseline and treatment on daily self-report student distress ratings as well as daily teacher rated distress, academic engagement, and work completion. All participants completed the Revised Children's Manifest Anxiety Scale-2 pre- and post-treatment as well as a Children's Intervention Rating Profile post-treatment. The participants received a total of five sessions twice a week to teach skills. With the modified program, it was found that four of the five students benefited from the intervention on academic performance or engagement and three of the five also benefited on emotional regulation ratings. Additionally, all five students perceived the intervention as acceptable. Suggestions for

future research include further assessment of student acculturation and acculturative stress, including more phone call check-ins and/or visits with parents, further assessment of the degree of teacher support of learned skills, and teacher acceptability of the intervention.

(97 pages)

PUBLIC ABSTRACT

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This study used a modified cognitive behavioral therapy (CBT) program for Latino/a students who were reported to have anxiety in the classroom by their elementary school teachers and/or parents. The CBT program was culturally and instructionally modified toward the Latino culture. The students who participated were 8-11 years old and were third and fifth graders. Data were taken before, during, and after treatment to assess the effects of the treatment. Students self-rated their levels of anxiety daily. Their teachers also rated each student's level of anxiety, their academic engagement, and work completion in the classroom. Each student was given the Revised Children's Manifest Anxiety Scale-2 before and after treatment to assess their perceived level of anxiety before and after treatment. The students participated in 5 sessions altogether, 30 minutes each, two times a week. During these sessions, students learned different skills to help them cope with their anxiety. After treatment students were given a Children's Intervention Rating Profile to assess their feelings on the treatment itself. It was found that four out the five students benefited from the modified intervention on both their academic performance and how engaged they were in class following the treatment. Three of the five students benefited in all three areas assessed: academic performance,

classroom engagement, and their emotional regulation ratings. All five students reported that the program was acceptable. In future research, it may be recommended that further assessment of how acculturated students are and their acculturative stress, more check-ins with the families, teacher skill and intervention acceptability could be included.

ACKNOWLEDGMENTS

I am deeply grateful to my chair, Dr. Donna Gilbertson, who has helped me to realize a new passion through this experience. Her guidance, patience, and support kept me motivated throughout this entire process.

I would also like to thank my committee members, Dr. Gretchen Peacock and Dr. Melanie Domenech Rodríguez, for their amazing feedback, suggestions, research, questions that helped to push me further, and their encouragement.

This thesis would not have been possible without my husband, Jared. He has stood by me throughout this entire process. He has supported me, pushed me, and encouraged me every step along the way. Thank you, Jared, for your total love and support! It means the world to me. To my kids who are my life, I love you so much! Finally, a huge thank you to my family and friends who have always believed in me.

Emilie J. Larsen

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CHAPTER I

INTRODUCTION

Anxiety disorders in children and youth range from 2-27% of the population and are one of the most prevalent disorders in childhood and adolescence (Mychailyszyn et al., 2011). Two thirds of children with anxiety disorders continue to struggle when not treated and can experience significant impairments. Anxiety can interfere with school, social, and familial functioning (Langley, Bergman, McCracken, & Piacentini, 2004) and can lead to chronic depression, problem behaviors, and substance abuse (Piña, Villalta, & Zurr, 2009) when left untreated. Of particular concern are the significantly higher levels of anxiety reported by Latino students compared to European American students (Glover, Pumariega, Holzer, Wise, & Rodriguez, 1999). Approximately 40% of Mexican adolescents between ages 12 to 17 have a mental health disorder, with anxiety disorders being most commonly reported (Benjet, Borges, Medina-Mora, Zambrano, & Aguilar-Gaxiola, 2009). Moreover, Saluja et al. (2004) also found that Latino youth in the U.S. had higher rates of depressive symptoms (22%) than European American (18%), Asian American (17%), and African American (15%) youth.

Latino students comprised 22% of the student population in U.S. schools and predicted to comprise 30% of the student population by 2025 (Fry & Passel, 2009). Many Latino students are experiencing a number of stressors that may increase their risk for anxiety. Additional stressors include learning a new language, poor socioeconomic resources, discrimination, minority status, acculturative stress, and immigrant generational differences (Kuperminc, Wilkins, Roche, & Alvarez-Jimenez, 2009);

Potochnick & Perreira, 2010; Rodríguez & Morrobel, 2004). Minority students are also more likely to report higher rates of exposure to violent events regardless of their socioeconomic status (SES) than European American students (Finch, Kolody, & Vega, 2000; Portes & Rumbaut 2001; Zuniga, 2002).

The unique stressors Latino students experience warrants the need for effective screening and treatment to prevent or reduce anxiety related problems. Although there is substantial empirical support for cognitive behavioral therapy (CBT) for treating depression and anxiety (Mychailyszyn et al., 2011), CBT treatment effects are primarily validated for European American youth and children (Villarreal, 2014). To date, studies have rarely been conducted to specifically examine the effects of treatments on anxiety levels of Latino students (Constantine & Sue, 2005; Fouad & Arredondo, 2007; Huey & Polo, 2008) although adapting treatments for ethnocultural minorities has been advised (Malgady & Costantino, 1999; Piña et al., 2009; E. F. Wagner, 2003). Bernal, Bonilla, and Bellido (1995) proposed the ecological validity model (EVM) that considers eight cultural dimensions to alter a best practice intervention to serve the needs of Latino clients best. Bernal's eight cultural and ecological context dimensions to consider for adaptation of an intervention to are language, persons, metaphors, content, concepts, goals, methods, and context (Bernal & Sáez-Santiago 2006). Piña, Zerr, Villalta, and Gonzalez (2012) showed that culturally adapting a CBT parent training intervention for Latino children using the EVM framework successfully reduced anxiety for Latino children with anxiety symptoms.

Unfortunately, less than 20% of all children and youth with anxiety are receiving

any treatment (Mychailyszyn et al., 2011). Moreover, Latino children and youth are less likely to receive treatment than European Americans (Howell & McFeeters, 2008; Zimmerman, 2005). Some treatment barriers that Latino families experience include language, acculturation, immigration, socioeconomic status (SES), cultural differences between the families and their providers, their transportation capabilities, the stigma of seeking help for psychotherapy, and attitudes toward treatment.

It is important to note, however, that of the 20% of children that are receiving mental health services, 70% or more are receiving services in school settings. Thus, a potential solution is to incorporate mental health services in the school where students are experiencing school impairments due to anxiety symptoms. Because Latinos had reportedly high levels of anxiety and given the importance of using a culturally adapted treatment for anxiety, this study specifically examined the effect of school-based treatment for Latino children experiencing anxiety that was interfering with social and academic functioning in the school setting. The school-based treatment in this study incorporated the EVM model to culturally adapt CBT interventions that can be applied to a school system. Adaptations such as language that was more culturally relevant to Latino youth, family involvement in goal setting and planning, and Latino values such as *simpatía*, *familismo*, *personalismo*, and collectivism were considered. Specific cultural adaptations were identified by having researchers, a cultural adaptation expert, teachers and several Latino parents review the literature, review the intervention and suggest needed adaptations to fit Latino culture and the school system needs.

CHAPTER II

LITERATURE REVIEW

The purpose of this literature review is to summarize empirical research on the treatment of anxiety for Latino/children and youth. The current review will discuss the Latino student population and cultural aspects, characteristics and prevalence of anxiety; negative outcomes of untreated anxiety, the previous research on culturally adapted treatments for anxiety in the clinic and school setting.

Latino Student Population

The Latino population is steadily rising in the U.S. Latino students currently represent 22% of the total student population and projected to comprise 30% by 2050 (Fry & Passel, 2009). The Latino population consists of Spanish-speaking populated regions of Latin America including Caribbean, Mexico, Central American, and South America. Latino students are coping with the same social and academic stressors as other students while dealing with additional unique cultural stressful challenges. Factors such as immigration status, family loss of support, generational and acculturative stress, ethnic or racial discrimination, microaggressions, language differences, and ethnic identity may cause students and their families additional stress than European American students (Blanco-Vega, Castro Olivo, & Merrell, 2008; Suarez-Orozco & Suarez-Orozco 2001). Moreover, Latinos are more likely to live in poverty and less likely to have a high school diploma than other ethnic groups (Rumbaut, 2004).

Characteristics and Prevalence of Anxiety

Anxiety disorders are characterized by developmentally inappropriate excessive worrying or fears to specific situations or stimuli that are persistent over time and causes considerable distress or impairment on important functioning. Anxiety is commonly defined as a construct that encompasses cognitive, behavioral, and psychological factors that influence functioning. Specific symptoms may include restlessness, fatigue, difficulty concentrating, irritability, muscle tension, nausea, or sleep disturbances (American Psychiatric Association [APA], 2013). According to Mychailyszyn et al. (2011), three main types of anxiety are treated in children. First, separation anxiety is characterized by excessive feelings of anxiety when the child is separated from their caretakers and their home. Second, generalized anxiety is marked by excessive anxiety that occurs and persists in some situations and places. Finally, social phobia is characterized by an extreme, persistent fear of having to perform or being in social situations that often entail a social evaluation. There is also a high comorbidity rate with more than one type of anxiety disorder although young children report higher levels of separation anxiety and older children report more social and generalized fears (Ford, Goodman, & Meltzer, 2003).

Estimations of the prevalence of youth ages 9 to 16 with an anxiety disorder are 8-21% (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003). Latino youth in the U.S. report higher levels of anxiety compared to European American students and their anxiety levels increase as students' progress through school (Camacho et al., 2015; Piña et al., 2012; Varela, Weems, Berman, Hensley, & Rodríguez de Bernal, 2007). Latino

children and youth are more likely to show greater clinical levels of anxiety and worrying symptoms than other ethnic students (Anderson & Mayes, 2010). Anxiety may also co-occur with depression. Results from the National Longitudinal Study of Adolescent Health examining adolescent depression from 7th grade to 12th grade found that minorities were more likely to report having higher levels of depression, with Latino American students reporting the highest levels of symptoms regardless of their SES status (Anderson & Mayes, 2010).

Although Latino students report anxiety, researchers have noted distinct differences in the expression of depressive and anxious symptoms that may lead to an underestimation of students who may be experiencing difficulties with anxiety. For example, Latino youth report more “diminished pleasure, decreased energy, low self-esteem, and crying” as compared to their European American, African American, and Asian youth, and more difficulty in concentration when reporting symptoms of depression (Anderson & Mayes, 2010; Choi & Park, 2006). In studies that have been done with Latinos, high levels of stigma have been documented (Leal, 2005; Varela & Hensley-Maloney, 2009). This stigma might exist because the mental illness is seen as a weakness in the individual’s characteristics such as a lack of willpower, poor motivation, or being intentionally unreasonable (Varela & Hensley-Maloney, 2009). Choi and Park propose that it may be more culturally acceptable for Latinos to express their depression using somatic symptoms rather than emotional symptoms. Adherence to the cultural construct of *machismo*, for example, may make it socially unacceptable for men to express their anxiety as internalized emotional difficulties that may be seen as a weakness

whereas somatization is an acceptable form of difficulty. Moreover, Latina women tend to use the term “nervios” which means “nerves” to describe their children’s anxiety and behavior problems (Varela & Hensley-Maloney, 2009). Using the “nervios” term may better represent a symptom that is “fixable” and not permanent. More research is needed on terms used to describe child anxiety in the Latino culture.

Negative Outcomes Associated with Anxiety

Children are affected by anxiety in some ways in their daily life. Anxious children are more likely to experience more difficulties with academic performance and peer relationships than nonanxious children (Ialongo, Edelsohn, Werthamer-Larsson, Crockett, & Kellam, 1995; Woodward & Fergusson, 2001). They will often avoid social and academic activities that children typically engage in which are crucial for their normal development (Mychailyszyn et al. 2011). Anxiety disorders are often comorbid with other emotional disorders (McLoone, Hudson, & Rapee, 2006; Schniering, Hudson, & Rapee, 2000) such as depression and attention and concentration difficulties. These negative outcomes can remain into adulthood if untreated (Mychailyszyn et al., 2011), thus it is important that psychologists identify and treat anxiety in children to better able to protect their long-term mental health functioning. Evidence also suggests that Latinos are least likely to receive treatment (Howell & McFeeters, 2008; Zimmerman, 2005). Given the Latino student population, there is the need to identify best practice interventions that are culturally appropriate and implemented (Castro-Olivo, 2010; Huey & Polo, 2008).

Cultural Factors and Anxiety

Culture is defined as beliefs and values that influence the customs, norms, practices, and social institutions and organizations (Smith, Domenech Rodríguez, & Bernal, 2011). Although cultural factors, individual values, behaviors, and norms all influence child outcomes, the cultural aspect of anxiety has not been well researched in the literature. Culture can serve as a protective factor that buffers adverse occurrences or potentially produces risks of anxiety problems. Protective or resilience factors are skills that students learn to cope with past and present significant stressors, challenges, and changes (Reyes & Elias, 2011; Wright & Masten, 2005). Protective coping skills include an ability to regulate emotions and behaviors, ability to take the initiative (goal setting, problem-solving, and positive thinking), develop positive social connections, and proactively seek adult support (Reyes & Elias, 2011).

Several Latino cultural characteristics may impact the cognition, behaviors and physiological dimensions of anxiety in a manner that increases the risk of or protects from impaired levels of anxiety (Varela, Sanchez-Sosa, Biggs, & Luis, 2009). There is a great deal of variability across Latino subgroups (Mexican vs. Puerto Rican vs. Cuban, etc.); however, there are certain cultural aspects and similarities across them. For example, *familismo* is an often-cited Latino cultural value. Familismo or familism is operationally defined as “attachments, reciprocity, and loyalty to family members beyond the boundaries of the nuclear family” (Andrés-Hyman et al., 2006, p. 696). The immediate and extended family is integral to familismo. Some characteristics of familismo include obedience to and respect for authority figures; being helpful, generous,

and loyal to all family members; and having a responsibility toward, sacrificing, and working hard all for the family. Because of these factors, the extended family, as well as the nuclear family, is more likely to be involved in treatment decision making and it would probably be important to find ways to involve the family to best benefit the child and to help make sure that they adhere to their treatment.

Another important cultural characteristic in the Latino culture is that of *personalismo*, which places importance on positive, warm, and trusting personal relationships (Cauce & Domenech-Rodríguez, 2002). Antshel (2002) gives an example of the importance of relationships. He states that when Latino clients are asked about their health care services, they will give the name of their actual physician, or health care provider rather than give the name of the institution. *Personalismo* incorporates personal relationships with those they work closely with regarding both connection and physical space. If a doctor were to place him/herself three feet away or more (like they might in non-Latino culture), then they might be thought to be distant, or patients may understand the physical distance as a sign of disinterest in them as a patient or person (Antshel, 2002). Thus, attention to building strong and warm relationships with Latino clients is important. Moreover, interventions that focus on helping others may help relieve distress (Clauss-Ehlers & Levi, 2002).

Simpatía, or kindness, is another Latino value (Antshel, 2002) that denotes harmony in relationships, compassion, and a strong feeling of community. There is an importance placed on making sure to avoid confrontation and to keep the peace. Group harmony is maintained by internalizing any feelings of anger or aggression and exhibiting

a demeanor of “pleasantness.” Additionally, personalismo and familismo components value interpersonal relationships as more important than the self and that it is also more important to remain agreeable than to have conflict. According to Antshel (2002), this may be one of the more important components that may help with treatment adherence and one way to express simpatia to the Latino clients is to express care and courtesy. Further, high values of the cultural concept of simpatia teach Latino youth to put themselves second to the needs of others, even to the point of taking on personal sacrifices and strong restraint of personal emotions.

One aspect of cultural differences that is important to take into account is that of individualistic type cultures versus collectivist cultures. Many Latino cultures adhere to collectivist ideals. In a collectivist culture, it is expected to put the needs of the group before the needs of the individual towards the good of the group or community (Triandis, 1995). Varela and Hensley-Maloney (2009) and Triandis put forth that the relationship between collectivism and anxiety is important because the way that emotions are expressed are consistent with the culture. The collective view may have more of an emphasis on self-control, emotional restraint, and compliance which may lead to more internalizing disorders such as anxiety.

Differences in cultural values and accepted behaviors may dictate the at-risk and resilience to consider when treating anxiety. For example, students that highly value collectivism and personalismo may also have learned key skills to gain and sustain strong supportive relationships, a key protective factor for mental illness. Alternatively, high adherence to simpatia with poor management of internalized emotions may lead to

internalizing problems (Varela et al., 2004). Thus, it is important to know how to effectively teach and support coping skills that fit into the appropriate cultural context for the child to reduce anxiety while enhancing and embellishing on existing resilience factors to handle difficult situations. Failure to consider cultural differences in treatment can limit treatment effects and lead to more severe mental health problems that impair social and academic functioning. Unfortunately, few studies have included Latino students in anxiety treatment studies. The following section will summarize the few studies that have been done to help support the idea of cultural adaption to treatment programs for Latino students experiencing anxiety.

Cultural Dimensions

A cultural adaptation of treatment refers to a modification of the treatment being used to make it “compatible with the client’s cultural patterns, meaning, and values” (Bernal, Jimenez-Chafey, & Domenech-Rodríguez, 2009; Smith et al., 2011). There are a few different frameworks to guide cultural adaptation of best practice treatment for culturally linguistic diverse students. For example, Bernal et al. (1995) and Bernal and Sáez-Santiago (2006) proposed the Ecological Validity Model (EVM) consisting of eight parameters of culture to consider when adapting psychotherapies such as CBT. The eight dimensions of cultural adaptation put forth by Bernal et al. (1995) are language, persons, metaphors, content, concepts, goals, methods, and contexts. First, treatment is administered to the child and parent’s preferred language (i.e., English or Spanish). Second, the person giving the treatment should be aware of the cultural characteristics of

the youth and their parents that they are working with and be “flexible” in working more effectively towards the individual and family characteristics and toward making them feel comfortable. Third, metaphors are added to include “symbols and concepts” that are used in that culture. For example, Mexicans use “dichos (sayings)” or “cuentos” (Ramirez et al., 2009) that can be included in their treatment. Costantino, Malgady, and Rogler (1994) developed Cuento Therapy, which uses *Cuentos*, which are Spanish-language folktales to help improve cognitive and emotional outcomes of Puerto Rican children and youth who were screened for behavioral problems. Cuento therapy also included social interaction, role-playing, discussion, and reflection such that participants were active learners by relating stories to their lives. Ramirez et al. administered Cuento Therapy in two elementary schools with 15,632 students, 97.5% of whom were Hispanic. Though the effect sizes were small, they showed that there was a reported lower level of anxiety after the treatment than the control group with a Cohen’s *d* effect size of .24 (Ramirez et al., 2009).

A fourth parameter was therapy content that incorporated the client’s cultural values, customs, history, and traditions. For example, personalismo which is the importance of interpersonal relationships can be incorporated into the treatment. Concepts are a fifth parameter that links the theoretical orientation of the therapy with client’s culture. Sixth, therapy goals are framed within the cultural values and expectations of the cultural group. For example, helping children to be less scared and worried which is what is expected in the Mexican culture, and thus this particular goal fits within the clients and family culture. Seventh is to adhere therapy methods to values

of the culture of the client. And finally, economic, social, and individual contexts of the presenting problem should also be considered when planning and implementing therapy.

Finally, Domenech-Rodríguez and Weiling (2004) further added to the EVM process by emphasizing community input when adapting an intervention with EVM dimensions. A cultural adaptation specialist (CAS) and community focus groups will help identify best practices as well as explore cultural adapted dimensions that may be needed. Assessment measures and treatment fidelity are also considered for adaptation.

Culturally Adapted Treatment with Latino Students

In clinical settings, Cognitive Behavior Therapy (CBT) is a best practice intervention to reduce anxiety. Research outcomes on anxiety treatment confirm that CBT is an effective treatment for 60 to 65% of children with anxiety (Ginsburg & Drake, 2002; Kendall, Settipani, & Cummings, 2012; Masia-Warner et al., 2005). CBT is an approach that considers physiological, behavioral and cognitive factors of a child's distress (Kendall & Hedtke, 2006). The premise of CBT is that there is a relationship between cognition, feelings, and behavior. For example, how one thinks about a situation affects how one feels and behaves. Irrational worries and thoughts about situations can trigger anxious psychological arousal that may lead to avoidance behaviors to escape more worrying. Therapy targets anxiety reduction by teaching some different skills. These skills include the recognition of physical reactions, anxious feelings, and anxiety-related thoughts when confronted with anxiety-related stimuli. Additionally, teaching students to understand how thoughts contribute to anxiety and relaxation techniques,

modifying distorted thoughts and replacing with positive self-statements, and develop a coping plan for dealing with anxiety using problem-solving skills. The student then rehearses using skills in the presence of feared stimuli using systematic desensitization or gradual exposure strategy and contingency management.

Given that CBT is one best practice for reducing anxiety, Piña et al. (2009) utilized the Ecological Validity Model to culturally adapt exposure-based CBT to reduce the anxiety of Mexican American youth in their sample. The eight parameters within the CBT Program were implemented with ten children of Mexican origin and their families between 7 and ten years old. All children met diagnostic criteria for anxiety disorder. Treatment consisted of 10 sessions over a 10- to 12-week period. Session 1 consisted of building rapport and explaining the program and discusses reasons why the child may be experiencing feelings of anxiety. Exposure was introduced in the second session by creating a hierarchy list of the child's fears. In the third and fourth sessions relaxation techniques and cognitive restructuring, training was taught. Next, exposure assignments were planned outside of the sessions to help teach the parents how to continue these types of assignments and also how to monitor their child during the exposure assignments. The last session consisted of a discussion of generalization and how to prevent relapse.

Results on pre and post CBT Program RCMAS scores study showed promise. Mean Total Anxiety scale scores decreased from 12.6 ($SD = 7.14$) before treatment to 3.6 ($SD = 4.06$) after treatment the time (pre-to-post) effect was statistically significant ($d = 1.3$). Additional statistical significant time effects were found pre and post scores on the RCMAS's Physiological Anxiety scale ($d = 0.70$), social-concerns concentration scale (d

= 1.0), and worry/oversensitivity scale ($d = 1.4$). Scale scores decreased on the physiological anxiety scale (from 4.3 [3.23] to 1.9 [2.13]), social-concerns concentration scale (from 2.9 [$SD = 2.10$] to 0.80 [$SD = 1.14$]), and worry/oversensitivity scale (from 5.4 [$SD = 3.13$] to 0.90 [$SD = 1.20$]).

In a second study, Piña et al. (2012) further studied the effects of an exposure-based therapy based on the child's caregiver responses to the anxious symptoms of Latino ($n = 52$) and European American ($n = 35$) youth. Piña et al. considered that parents often also have anxiety disorders that may model and reinforce anxious behaviors in their children. Moreover, Latino families may prefer to work on treatments together. Participants were randomly divided into two groups: one with the child only and one with the child and the parent. In the child the only group, parents reviewed each session with the therapist and child for last 10 minutes of a 60-minute session. In the child and parent condition, the parent attended the entire session. During these sessions, parents were taught how to reduce reinforcement of the child's anxious behaviors and how to help the child practice what they learned in the session. Each group lasted for 12 weeks in the client's and parent's preferred language. Significant improvements were found at posttest for both groups of clinician, child, and parent measures. Also, 37% of the children in the group with more parent involvement moved from the clinical or borderline range to the normal range on the Child Behavior Checklist (CBCL); whereas, 14% of the children in the child only group moved from the clinical to the normal range. Moreover, positive program effects were not moderated by Latino ethnicity or Spanish language. From these findings, Piña et al. conclude that training the child's caregiver on how to help their child

reduce their anxiety and teaching them not to reinforce anxious behaviors could be a critical component to treatment of child anxiety for Latino and European American children with anxiety symptoms.

There are no randomized controlled trials that have evaluated anxiety programs among Hispanic/Latino children. And the very few studies that have been conducted need to be replicated. Results from the few studies show promise in helping to lower levels of anxiety in Hispanic/Latino children particularly if those anxiety treatment programs have been tailored to the individual child and their family, potentially using a cultural adaptation of the eight parameters to cater to the individual child and their family.

Advantages of Cognitive Behavior Therapy Treatment in School Settings

Additional research is needed on the cultural adaptations of CBT programs to support positive outcomes for Latino students. However, access barriers to clinic-based health care is a major factor linked to mental health service disparities. Latino children and families encounter barriers such as limited transportation, cultural and language differences, scheduling, and lack of insurance (Flores et al., 2002). Latino children are the most likely ethnic group to be uninsured. School-based treatment may help to avoid many of these barriers. Because children and youth spend a great majority of their time at school, there would be easy access for mental health professionals to work with students. Moreover, the intensity of school-based interventions is presented on several levels: primary for prevention, secondary for at-risk or less intense problems, and tertiary for

severe problems.

Attending school is a stressful experience, and many children need training and support on how to cope with school-based social and academic stressors. Given that many students may be overly anxious about separation from family, academic evaluations, or social relationships with peers or teachers, schools would be an ideal place to treat children's mental health concerns (Elkins, McHugh, Santucci, & Barlow, 2011; McLoone et al., 2006). Moreover, students may benefit from intervention services that meet individual needs in the context where anxiety is occurring.

Three CBT treatment programs that have been evaluated in the school include The Cool Kids Program (Mifsud & Rapee, 2005), The Friends Program (Barrett, Lowry-Webster, & Dadds, 2001), and The Skills for Social and Academic Success Program (Fisher, Masia-Warner, & Klein, 2004). Moreover, initial signs of anxiety may be better detected and treated in school settings (Kendall, Settapani, & Cummings, 2012). Kendall et al. suggest that further examination of potential variables that may influence treatment outcomes in school settings such as generalization strategies, peer mediation, therapy process variables, and level of child or teacher involvement is needed. Moreover, research is needed on the effect of these factors on anxiety reduction and coping ability within the context and integration of the child's culture. Further research on CBT school-based treatment may include the delivery of exposure techniques with an adult or peer support in real situations.

Mychailyszyn et al. (2011) also propose several challenges to implementing CBT in school settings that include case-load restrictions, staff training, loss of academic time,

and scheduling constraints in the schools. Shortened sessions per week may be more workable, but the outcomes of brief sessions are unknown. Results from a review of school-based interventions conducted by Schoenfeld, Colledge, and Janney (2008) also showed that anxiety impaired academic functioning, but few studies had investigated the effects of CBT on academic performance. CBT treatments can be a viable option within the schools, but more research needs to be done on the feasibility and effects of these treatments with both appropriate and valid cultural adaptations that fit the school system and Latino student populations.

Summary or Purpose of Study

In summation, CBT is effective for European American students, but few studies have examined culturally adapted treatment effects in school settings for other ethnic cultures. The Latino student population is the largest growing ethnic minority group in the schools in the U.S., and these students appear to suffer from anxiety significantly more than European American students. In the present study, a culturally adapted CBT treatment was implemented for Latino children with at-risk or clinical levels of anxiety was developed and implemented within a school setting. Given the importance of learning and using strategies to cope throughout school years, treatment was provided to elementary students who are struggling with functioning in a school setting and experiencing anxiety symptoms. Intervention strategies involved education about anxiety and training on relaxation, cognitive restructuring, and coping strategies to be used with graduated exposure in the school setting. Similar to prior studies by Piña et al. (2012),

cultural adaptations were based on the ecological validity model (Bernal et al., 1995) that incorporates seven areas of cultural factors into treatment to address a person's cultural context and experiences that may relate to the problem being treated. The areas addressed in this study include persons, metaphors, content, concepts, goals, methods, and context. Treatment was further adapted to provide brief 30-minute sessions that were administered with a strong focus on supporting skill use in the school setting (e.g., teacher prompts, praise, and peer mediation). Finally, family input was also included before beginning treatment. It is hypothesized that there will be a reduction in anxiety levels and symptoms between baseline and treatment, (a) repeated child reports during identified anxiety provoking situations and (b) pre- to post measures –treatment. Further, it is hypothesized that treated students would show more adaptive social functioning in anxiety provoking situations. The present research addressed the following questions:

1. Is there evidence of a functional relationship between the implementation of a culturally adapted school-based anxiety treatment program and teacher ratings of academic and emotional regulation behaviors of Latino/elementary students experiencing anxiety in school settings?
2. Is there evidence of a functional relationship between the implementation of a culturally adapted school-based anxiety treatment program and student distress ratings?
3. To what extent will the intervention lead to changes in student -reported anxiety symptoms on *The Revised Children's Manifest Anxiety Scale-2*?
4. To what extent will students rate the intervention as acceptable on the *Children's Intervention Rating Profile*?

CHAPTER III

METHODS

Participants

Participants included five elementary students of Latino heritage and born in the U.S. There were three third-grade students all in the same classroom with the same teacher, one fourth grader, and one fifth grader. The first author, the school psychologist, provided the treatment to each participant and teacher.

All students were first referred by teachers and confirmed by parents to be exhibiting interfering anxiety behaviors with academic or social functioning. Demographic and specific anxiety behaviors are presented in Table 1. All students were English speaking and listening at an upper level of understanding of English based on World-Class Instructional Design and Assessment (WIDA) ACCESS for ELL 2.0 scores on a yearly school administered language test used to determine the need or exit criterion for English language services. No student was participating in another psychosocial or pharmacological therapy for anxiety disorders during this study.

Setting

Students and teachers completed questionnaires with the researcher in a quiet room at the school. Parents completed questionnaires at home and sent the forms back to the researcher. All five treatment sessions were conducted in a group setting with two to three students present in a quiet setting at the school. Students worked with the primary

Table 1

Participant Demographic Information and Teacher Reported Problem Anxiety Stressors

Participant	Grade	Gender	English level	Native language	Disability	Stressors
Adrian	3 rd	Male	4 Expanding	Spanish		Academics (reading)
Cameron	5 th	Male	5 Bridging ^a	English	Learning disability	Academics (math and reading) Peers
Daniela	3 rd	Female	5 Bridging ^a	English		Academics (math and reading) Family/Home Peers
Gil	4 th	Male	4 Expanding	Spanish		Academics (math) Peers
Kara	3 rd	Female	4 Expanding	Spanish	Learning disability	Academics (math and reading) Social

^a Bridging levels are understating and using a variety of sentence lengths of varying linguistic complexity in extended oral or written discourse, including stories, essays, or reports; oral or written language approaching comparability to that of English-proficient peers when presented with grade level material 4 Expanding are a variety of sentence lengths of varying linguistic complexity in oral discourse or multiple, related paragraphs; oral or written language with minimal phonological, syntactic, or semantic errors that do not impede the overall meaning of the communication when presented with oral or written connected discourse with occasional visual and graphic support.

researcher who was the treatment therapist on a twice a week basis during this period.

Treatment effects were assessed during a school day in the student's general education classroom that contained 30 to 35 students.

Measures

Direct Behavior Ratings of Academic Work and Emotional Regulation

The assessment tool was used to collect classroom behaviors over time was the

Direct Behavior Ratings (DBR). A DBR scale was used in this study to measure the change in three student behaviors: (1) percent of academic engagement, (2) academic performance, and (3) appropriate emotional regulation during class (see Appendix A). Academic performance was defined as teacher estimation of the student completing work at or above 80% accuracy with appropriate teacher help (i.e., answering several questions or a teacher check for understanding). Academically engaged was defined as actively or passively participating in the classroom activity including writing, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials. Appropriate emotional regulation was defined as responding to classroom experiences with a range of emotions that are flexible and socially acceptable and uses effective coping strategies. For example, student stays calm, solves problems and conflicts, controls moods and actions, talks about feelings and concerns, asks others for help, uses positive or “can do” statements about self or others, makes good choices.

Estimates of the percentage of the occurrence of a target behavior occurrence were made by an observer (each student’s teacher) on a DBR by marking their estimate on a Likert scale between 0% to 100% immediately following an observation period. There has been some research on the utility of DBRs for monitoring behavior and behavior change with interventions (e.g., Chafouleas, Riley-Tillman, & Christ, 2009). Test-retest correlations over a week period of a 20-minute classroom observation looking at academic engagement and disruptive behaviors are statistically significant falling within the low to high range (range = .31-1.00; Riley-Tillman, Christ, Chafouleas, Boice-Mallach, & Briesch, 2010). Moderate to high correlations were found between teacher

DBR rating scales and systematic direct observation (SDO) on on-task behavior ($r = 0.811$) and disruptive behavior ($r = 0.874$) ratings (Chafouleas et al., 2009). When used to monitor the effects of a self-monitoring intervention, DBRs of engagement and preparedness completed by students were consistently higher estimates of behavior than engagement and off-task measured using SDOs. Similar trends in data paths and effect sizes were found in treatment and baseline conditions (Chafouleas, Sanetti, Jeffrey, & Fallon, 2012).

A DBR scale was used in this study to measure the change in percent of academic engagement, academic performance, and appropriate emotional regulation during class (see Appendix A). Academic performance was defined as completing work at or above 80% accuracy with appropriate teacher help (i.e., answering several questions or a teacher check for understanding). Academically engaged was defined as actively or passively participating in the classroom activity including writing, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials. Appropriate emotional regulation was defined as responding to classroom experiences with a range of emotions that are flexible and socially acceptable and uses effective coping strategies. For example, student stays calm, solves problems and conflicts, controls moods and actions, talks about feelings and concerns, asks others for help, uses positive or “can do” statements about self or others, makes good choices.

Each behavior target was rated on a line with 11 gradients marked with three quantitative anchors, 0%, 50%, and 100%, at the first, middle, and end gradient mark, respectively. Teachers were asked to estimate the percentage of time the student

exhibited academic work performance, engagement, and emotional regulation during reading and math lessons by marking an “X” along the continuous line on the two scales. For example, the rater placed an “X” at or circled the eight gradient marker when estimating that a student was academically engaged for 80% of the observation time.

Anxiety and Distress

Daily ratings of distress, also termed as subjective units of discomfort (SUD) ratings or Subjective Anxiety Scale, were used to measure the change in student’s self-reported feelings of anxiety based on their reported triggers (see Appendix B). Students rated their highest level of distress for a class session on a thermometer depicting eight gradients in tens starting with 10 (cool and easy) to 80 (flipping out). SUDS have been used to assess an adult or child’s self-reported level of discomfort (Kaplan, Smith, & Coons, 1995), disturbance (Harris, Kemmerling, & North, 2002), or distress (McCullough, 2002). With adults, SUDS are based on a rating scale of 1, which denotes feelings of no distress, to 100, which denotes feelings of extreme distress. Results from treatment studies with adults showed significant negative correlations between the SUDS ratings and implementation of CBT programs with decreasing levels of anxiety with exposure to more intense anxious provoking situations (Kaplan, Smith, & Coons, 1995). Significant correlations between SUD ratings and other measures of anxiety include pulse and hand temperatures (Thyer, Papsdorf, Davis, & Vallecorsa, 1984), Multiple Affect Adjective Check List ($r = .53$), State-Trait Anxiety Inventory ($r = .69$; Kaplan et al., 1995), and Global Assessment of Functioning (GAF) Scale ($r = -.45$). Benjamin et al. (2010) examined change in 91 youth (ages 7-14) SUD ratings of anxiety with CBT

treatment using the 0 to 8 scale. There was a significant change with reduction in peak ratings per session with additional exposure based sessions, $t(91) = 2.27, p < .05$. These results also suggested that child age, gender, the level of functioning, or diagnosis severity did not predict the expected SUDS patterns.

Anxiety Scale

The Revised Children's Manifest Anxiety Scale-2 (RCMAS; Reynolds & Richmond, 2008) was used to measure level and nature of each student's anxiety. The RCMAS-2 consists of 28 self-report items to measure anxiety in children and adolescents between the ages of 6 and 19 years old. Raters endorse *yes* scored as 1 for symptom present or *no* scored as 0 for no symptom present. The RCMAS-2 yields a Total Anxiety Score and Physiological Anxiety, Worry/Oversensitivity, and Social Concerns/Concentration and Lie scale scores. Scores are reported as a *t* score with a *t* score of 50 as an average score and a standard deviation of 10. Higher scores indicate a higher level of anxiety with scores above 60 indicating problematic anxiety levels. Cronbach alpha for RCMAS-2 is .92 with a range of .75 to .86 for each factor (Reynolds & Richmond 2008).

Although the RCMAS-2 sample to derive norms reflected the demographics of the US more closely than the RCMAS-1, psychometric evidence with Latino populations has been shown with the RCMAS-1. Piña et al. (2012) reported alpha coefficients scores for internalizing scale, including the RCMAS that ranged from .89 to .92. Varela and Biggs (2006) reported a four-factor model of the RCMAS (Bentler-Bonett non-normed fit index range, .94 to .95) with similar interrelationships among subscales ($r = .73$ to 1.00) between Mexican ($n = 53$), Mexican American ($n = 46$), and European American ($n = 51$)

youth between ages 10 and 14. Moreover, the internal consistency coefficients ($r = .60$ to $.89$) also overlapped within the confidence intervals of the reliability coefficients between the three groups except Mexican youth ($r = .44$) on the Psychological Anxiety scale. Piña et al. (2009) also showed cross-ethnic/gender measurement equivalence with 677 youth, ages 6 to 16 years old, with 59% Latino youth and 41% European American youth.

Student Treatment Acceptability Ratings

A modified version of the Children's Intervention Rating Profile (CIRP; Elliott, Witt, Galvin, & Peterson; 1984) was used to assess student acceptability (see Appendix C). The scale is a 7-item Likert-type rating ranging from 1 (*I disagree very much*) to 5 (*I agree very much*). The total score is calculated with higher scores indicating a more acceptable and effective program. Turco and Elliot (1986) reported good reliability (coefficient alpha = $.86$) for the total score. The acceptability scale was administered at the end of the study.

Design

A nonconcurrent multiple baseline design was implemented using A-B replications across students to assess the effects of baseline and treatment on daily student distress ratings, and each teacher rated distress, academic engagement, and work completion with students exhibiting at-risk or clinical levels of anxiety that is interfering with school performance daily. The treatment phase consisted of both skill training and adult behavioral intervention support as students attempted to use coping skills in the classroom environment. Single-case designs have been designated to be appropriate for a

study designed to explore and pilot the effects and acceptability of a modified or new treatment endorsed by the evidence-based treatment movement (Chambless et al., 1996). Moreover, multiple baseline design is appropriate when assessed outcomes are not expected to return to initial levels when treatment is withdrawn and provides a method to assess or rule out a possible assessment or history factors on study outcomes (Kazdin, 1980). In this study, students were assigned to a baseline phase lasting 1 to 3 weeks before implementing and evaluating the effect of a treatment phase using daily repeated measures of student reported anxiety levels and academic performance.

Procedures

Cultural Adaptation Process (CAP)

The treatment plan was based on CBT (Barrett, Lowry-Webster, & Turner, 2000; Wagner, 2013). A review of CBT literature showed that a common thread throughout all of the successful CBT programs included education about anxiety, skills training on relaxation, cognitive restructuring, coping problem solving, and self-reinforcement (see Table 2). Concepts and modified procedures were used from two CBT program: FRIENDS (Barrett, Lowry-Webster et al., 2001) and Worried No More (Wagner, 2002). Instructional strategies in this study were activity based on modeling; role plays, prompts, feedback, and contingent reinforcement. Students also were engaged in hierarchy-based exposure tasks with teacher support in the classroom.

The CBT treatment plan was written and modified three ways. First, researchers modified the treatment to transition CBT into a school setting context. Based on input

Table 2

Treatment Lesson Topics

Lesson topic	Skills
Spot the worry hill and goal	Yucky & Lucky feelings How to rate our feelings, thinking, and emotions Jumping Bean Chart Create anxiety/worry hills hierarchy How to feel proud
Breathe and MAP It	Jumping Beans Using Thermometer and Jumping Beans to link worries Spot a Worry Hill Breathe Bubbles Activity Calm
Check Up! Rev it Up!	Breathing steps, Balloon Activity How thoughts, feelings, and behavior influence each other Replace negative thoughts with “check-up” and rev up thinking
Rev it up and Keep on trucking over hills (made into two lessons)	Identify supporting teammates How to cope and respond to triggers How to “rev up” the helpful thinking Choose coping responses to hierarchy list to make a Map Discuss small steps it takes to reach larger goal How to “keep on trucking” over-worry tugs (or hills) Practice “keep on trucking” on a tug of war from hierarchy list

from three practicing school psychologists, six lessons were presented for 30 minutes each to decrease time away from academic instruction. Second, researchers conducted a literature review on the culturally responsive instruction of culturally linguistic diverse students. Based on this review, language accommodations were employed to support

understandings of material (Waxman, Téllez, & Walberg, 2006; see Table 3). Third, cultural adaptations were added based on the Ecological Validity Model (Bernal et al., 1995; see Table 4). Finally, three Latina teachers and a cultural adaptation expert reviewed the treatment with the EVM and culturally responsive instructional adaptations. Researcher asked reviewers if the language used was appropriate for Latino students, if cultural adaptations made were acceptable, and overall acceptability of the treatment with cultural accommodations and adaptations. Feedback received from all three Latina teachers was incorporated into the final treatment plan.

Consent

After obtaining Institutional Review Board (IRB) approval from Utah State University and research approval from the school district, three teachers of from 12 third to sixth-grade teachers given a Teacher Nomination Form (see Appendix D) nominated seven students who are at-risk for having higher levels of anxiety than the general population of students. The seven students were given a packet to take home to their parents. The packet included an informed consent form, English, and Spanish (see

Table 3

Instructional Adaptations to the Treatment

Step	Instructional adaptation
1.	Read material out loud by leader
2.	Checked consistently for comprehension
3.	Used simple, familiar vocabulary without simplifying content and taught new vocabulary. For example, show pictures of common objects, demonstrate actions, give students the definition, examples, and nonexamples, and opportunities to use the words
4.	Explained ideas several times using multiple examples

Table 4

Cultural Adaptations using Bernal et al. (1995) Dimensions of Cultural Adaptations

Dimensions	Cultural adaptations
Metaphors	Used symbols, metaphors, and other concepts that will help Latino youth and their parents relate to the treatment. For example, driving a car/bike to go over a worry hill
Persons	Administered program with a Latina therapist emphasizing safe, personal, trusting relationships. Shared appropriate personal experiences with cultural similarities like food and events. Flexible with tailoring to different values and explanations of anxiety that come up during lessons.
Goals and outcomes	Solicited family input on goals and acceptability of skills asking: <ul style="list-style-type: none"> • What are some of your child's strengths/ characteristics? • What does your child like about school? • What are the chief problems that worry, nervousness (nervios) or stress causes your child? • What do you think would help your child at school? • How would you like us to work with your child and family? • What are the most important results you hope your child receives from this support?
Content	Encourages students to consider their cultural values, customs, and traditions to adapt skills that they would use. Incorporated stories from their lives to use as examples and role plays to make the treatment relevant to them and their cultural values. For example, practicing skills using their experiences with daily academics and anxious social experiences. Consider culture-specific life and family circumstances, such as school belonging and acculturation factors
Method	Adhered to the following values: <ul style="list-style-type: none"> • Collectivism and group harmony values by facilitating peer support within group and outside group in school context • Personalismo and sympatia values by incorporating ways to help get past distress with opportunities to help others in positive ways. Role played situations in which they might recognize one of them might be experiencing distress in their classroom setting) • <i>Respeto</i> by linking support from positive role models in school. Consultation with classroom and after school club teachers to support the students in their classroom. The Latina therapist was also available to the students on the 2 to 3 days she was present at the school.

Appendix E), a demographic form (see Appendix F), and a return envelope. Students and parents were instructed to return the completed form in a sealed return envelope to be collected by the researcher. Students received a small incentive (e.g., candy, toy) for returning the packet, regardless of whether their parents allowed them to participate. Of the seven packets sent home with students, five parents consented to have their child participate in the study. Parent consent and child assent were obtained before any data collection. An acculturation measure had been intended to be sent home with the original packet for the parents to complete. However, the school district requested that it be removed before they would approve the study.

Pretreatment Assessment

Assessment was administered after receiving parental consent to the study. Table 5 presents the administration of the pre, during and post-treatment assessment schedule during this study. For the pre-assessment administration, the primary researcher had each student complete the RCMAS-2 with the researcher, and conducted an interview with the teacher. A modified version of the Problem Identification teacher interview (Kratochwill & Bergan, 1990; see Appendix G) was used to identify anxious situations, dysfunctional avoidance or behaviors related to the anxiety that occurs in the school setting. The purpose of the interview was to identify where problem anxiety and corresponding behavior problems tend to occur the most and least often, what events occur immediately before dysfunctional behaviors (antecedents or stress triggers) and what happens after behaviors occur (consequences). A brief version was also used to interview students (see Appendix H) to identify specific instances and experiences that generate anxiety for

Table 5

Assessments Administered

Form	Who fills out	When administered	Purpose
Teacher nomination form	Teachers	Before beginning the treatment	To identify Latino students experiencing anxiety in the classroom that is impacting their educational experience. Recruitment for the study.
Informed consent	Parents	Before beginning the treatment	Gain parent consent for each student to participate in the program and research study. (A copy in English and Spanish)
Demographic form	Parents	Before beginning the treatment	Gather demographic information.
Problem identification interview	Teacher	Once consent is received - before beginning the treatment	Identify anxious situations, dysfunctional avoidance, and behaviors related to the anxiety that occurs in the school setting.
Problem identification interview	Parent	Once consent is received – before beginning treatment	Identify anxious situations, dysfunctional avoidance, and behaviors related to the anxiety that occurs in the school setting.
Problem identification interview	Student	Once consent is received – before beginning the treatment	Identify anxious situations, dysfunctional avoidance, and behaviors related to the anxiety that occurs in the school setting.
Daily behavior chart	Student's Teacher	Once consent is received completed four times per week	To observe percentage of work completed in classroom or academic engagement. (Impact of anxiety on classroom performance.)
Daily student distress ratings	Each Individual Student	Once consent is received completed four times per week	To measure the change in student's self-reported feelings of anxiety.
Revised Children's Manifest Anxiety Scale (RCMAS)	Each Individual Student	After consent is received – before beginning treatment and post-treatment	To measure the level and the nature of each student's anxiety.
Children's Intervention Rating Profile (CIRP)	Each Individual Student	At the conclusion of the study	Assess each student's acceptability of the treatment program.

them. Parents also completed a form with questions (Kleinman, Eisenberg, & Good, 2006; Tervalon & Murray-Garcia, 1998; see Appendix I) to determine family concerns, goals, treatment preferences, and family involvement. Parents answered the following questions: (1) What are some of your child's strengths/characteristics? What does your child like about school? (2) When do you notice that your child is worried, distressed, or nervous? (3) What are the chief problems that your child's worry, distress, or nervousness has caused for your child? (4) When do you notice it? (5) What kind of supports do you think would help your child? (6) Do you think your child would benefit from some lessons that teach how to cope with worry or nervousness? (7) What are the most important results you hope your child receives from this support? Information from teacher and parent was used to develop hypotheses of Latino school-related anxiety and when implementing intervention procedures that target anxious provoking situations.

Baseline

During baseline, no treatment components were administered. After a brief training session, each student recorded highest level of distress on the daily distress rating form during a school day. Each teacher was trained and recorded academic engagement, work performance and emotional regulation on the DBR after reading and math class without informing the student or providing feedback each school day. Throughout the study, teachers followed typical classroom routines for reading and math.

Treatment

Once the baseline was established the treatment began at a set time twice a week

with each teacher at a time that the student would not miss academic content. During treatment, students first received the five sessions total, twice a week to teach skills. Following the psychoeducation lessons, the participant and researcher developed a hierarchy of least to most anxious situations to select situations to practice skill acquisition in the classroom with teacher support. A written coping/problem-solving plan was developed with the primary researcher and each participant individually to remind the student to use the strategies taught in the five lessons. Coping strategies added to the plan were taught during the lesson such as CALM breathing, mapping out choices, checking in on your worry, using positive thinking, and being proud of efforts. After completing the lessons, the researcher met with the teacher to go over the written coping plan of skills taught during the lesson to teach the teacher how to prompt and support the students to use skills during anxious situations. During the entire treatment phase, the teacher and student together completed daily recordings as conducted during baseline.

Post-Treatment Assessment

Students were asked to complete the RCMAS-2 and the CIRP after treatment was completed.

CHAPTER IV

RESULTS

The effects of the intervention on teacher and student academic and distress ratings in the classroom setting were assessed using visual inspection of the time-series data as well as a comparison of mean percentage scores for all subjects for each experimental (Scruggs, Mastropieri, & Casto, 1987). Differences between baseline and the treatment condition are discussed below using visual inspection of the time-series data for significant changes in the level, trend, and variability within and between conditions.

The effects of baseline and intervention on teacher-rated academic engagement, academic performance, and emotional regulation are presented in Figures 1 and 2 for math and reading. Figure 3 presents the effects of the experimental phases on student rated. Table 6 reports student's change in pre and post anxiety levels on the RCMAS-2 total and subscales. Descriptive statistics for all measures are presented in Table 7 for the baseline and intervention conditions for each participant. Effect sizes were calculated as Cohen's d commonly used in repeated measures studies and interpreted as $d = 0.2$ small, $d = 0.5$ medium, and $d = 0.8$ large (Cohen, 1988).

Research Question 1: Is there evidence of a functional relationship between the implementation of a culturally adapted school-based anxiety treatment program and teacher ratings of academic and emotional regulation behaviors of elementary Latino/ students experiencing anxiety in school settings?

Visual inspection of Figures 1, 2, and 3 shows variability in academic and

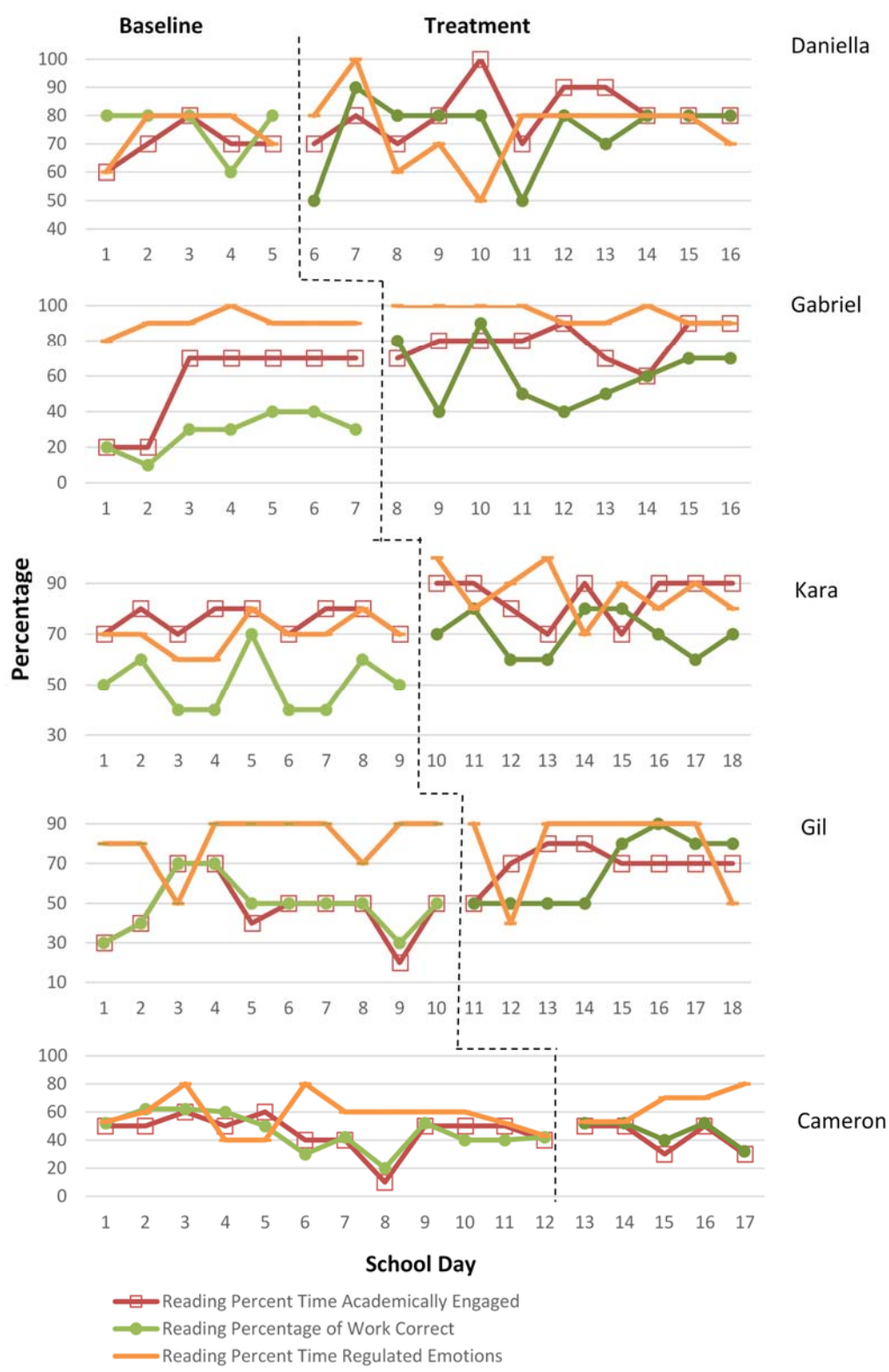


Figure 1. Teacher ratings on READING percentage of academic work performance, academic engagement, and emotional regulation during baseline and treatment phases.



Figure 2. Teacher ratings on MATH percentage of academic work performance, academic engagement, and emotional regulation during baseline and treatment phases

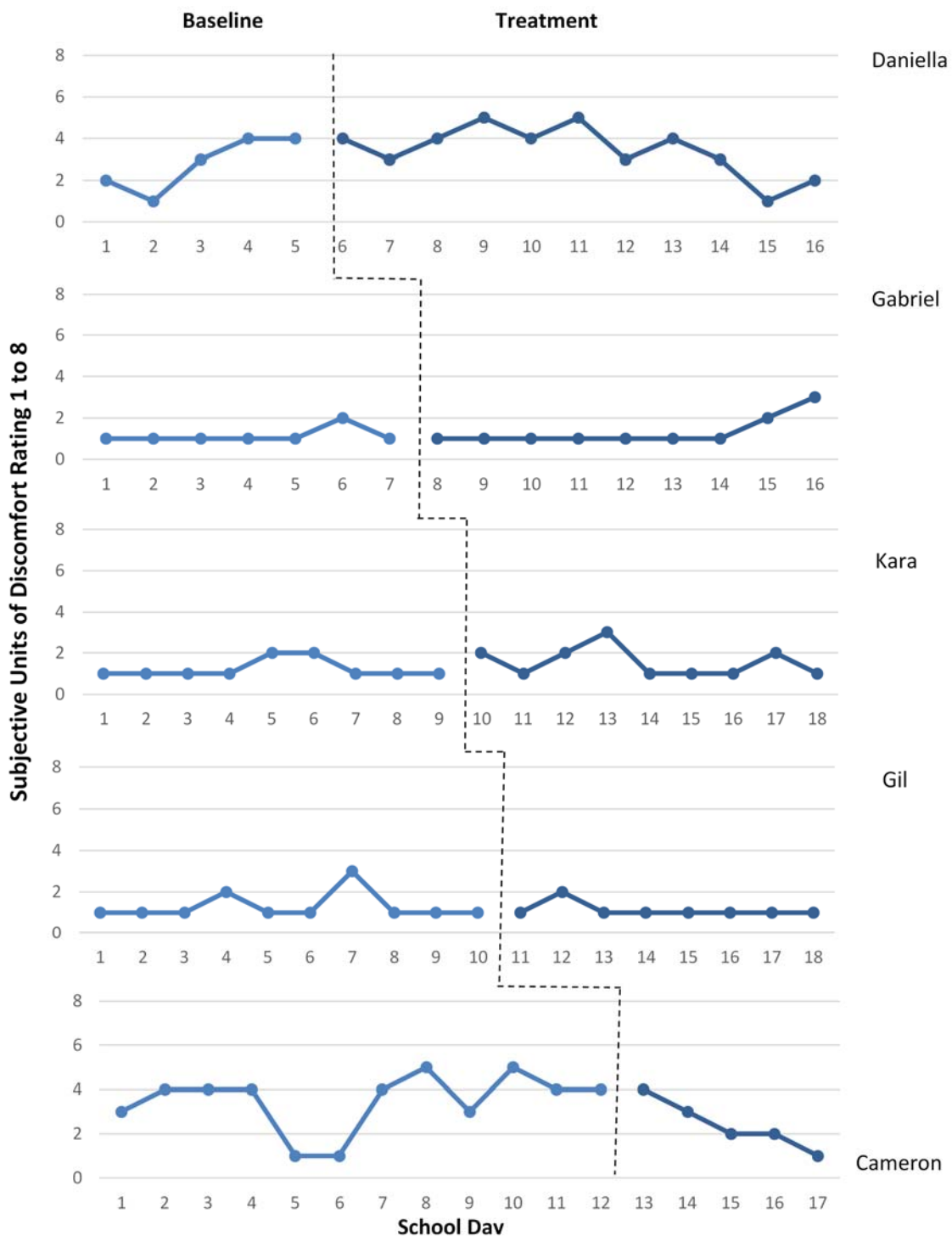


Figure 3. Student daily subjective units of discomfort rating during baseline and treatment.

Table 6

The Revised Children's Manifest Anxiety Scale Self-Report (t scores)

Subscale	Time	Daniela	Adrian	Gil	Kara	Cameron
Lie	Baseline	< 30	69	64	69	49
	Treatment	34	49	64	64	56
Physical	Baseline	65	46	36	36	50
	Treatment	58	43	40	46	54
	% change	-8%	-4%	3%	9%	3%
Social	Baseline	66	53	47	44	53
	Treatment	68	44	34	44	44
	% change	1%	-10%	-14%	-1%	-10%
Worry	Baseline	68	54	43	40	54
	Treatment	65	43	43	50	47
	% change	-4%	-12%	-1%	9%	-8%
Total	Baseline	68	51	41	38	53
	Treatment	66	42	38	46	47
	% change	-3%	-10%	-4%	7%	-7%

emotional regulation gains after treatment relative to baseline. Specifically, Daniella's average engagement ratings were at 70% during math and reading during baseline, but average performance on math and reading work was at 80% correct. Following treatment, Daniella's math performance showed an increasing trend of improved ratings until ratings fell to a baseline level of 80% for the last three sessions. Her math engagement ratings fluctuated over time, but average level increased to 76% due to more consistent treatment ratings at or above 80% relative to baseline. Daniella's reading performance

Table 7

Mean, Standard Deviations Descriptive Statistics, and Effect Size (d) of Experimental Conditions

Student	Variable	Math						Reading						SUD	
		Engagement % of time		Performance % of time		Emotions regulated % of time		Engagement % of time		Performance % of time		Emotions regulated % of time		Range 1 to 8	
		BL	TX	BL	TX	BL	TX	BL	TX	BL	TX	BL	TX	BL	TX
Daniella	<i>M</i>	70.0	76.4	78.0	84.0	74.0	76.4	70.0	80.9	76.0	74.0	74.0	75.5	2.8	3.5
	<i>SD</i>	7.1	8.1	4.5	10.7	5.5	12.1	7.1	9.4	8.9	13.5	8.9	12.9	1.3	1.2
	% level change	5.4		5.0		1.4		9.9		-3.0		0.5		-0.3	
	<i>d</i>	0.9		1.3		0.4		1.5		-0.2		0.2		0.5	
Adrian	<i>M</i>	52.9	77.8	27.1	60.0	90.0	93.3	55.7	78.9	28.6	61.1	90.0	95.6	1.1	1.3
	<i>SD</i>	18.9	8.3	9.5	16.6	5.8	5.0	24.4	10.5	10.7	17.6	5.8	5.3	0.4	0.7
	% level change	23.9		31.9		2.3		22.2		31.5		4.6		-0.8	
	<i>d</i>	1.3		3.5		0.6		0.9		3.0		1.0		0.5	
Kara	<i>M</i>	72.5	80.0	33.3	71.2	81.3	85.0	75.6	84.4	50.0	70.0	73.8	87.5	1.2	1.6
	<i>SD</i>	4.6	5.3	10.0	11.2	6.4	12.0	5.3	8.8	11.2	8.7	13.0	10.4	0.4	0.8
	% level change	6.5		36.9		2.8		7.9		19.0		12.8		-0.7	
	<i>d</i>	1.6		3.8		0.6		1.7		1.8		1.1		0.8	
Gil	<i>M</i>	34.5	65.7	30.0	50.8	85.6	90.0	48.9	70.0	51.1	64.2	82.2	82.9	1.3	1.2
	<i>SD</i>	10.1	23.8	4.7	30.2	5.3	0.0	15.3	9.3	13.7	18.1	13.9	18.9	0.7	0.4
	% level change	30.2		19.8		3.4		20.1		12.1		-0.4		-1.1	
	<i>d</i>	3.1		4.4		0.8		1.4		1.0		0.0		-0.2	
Cameron	<i>M</i>	44.2	40.2	47.1	42.0	55.0	65.0	45.8	45.0	46.0	49.0	57.3	61.5	3.5	2.8
	<i>SD</i>	13.1	11.5	13.8	11.5	15.1	12.9	13.1	10.1	12.9	6.0	13.2	9.8	1.3	1.0
	% level change	-5.0		-6.1		9.0		-1.8		2.0		3.2		-1.8	
	<i>d</i>	-0.3		-0.4		0.7		-0.1		0.2		0.3		-0.6	

did not improve showing a similar average mean from 76% during baseline to 74% during treatment. Treatment engagement during reading showed a positive trend over time with an average mean of 81%. Daniella's teacher rated emotional regulation between 60% and 80% during both baseline and treatment. As academic scores increased with treatment in reading, her emotional regulation scores showed an initial decrease in trends but gradually increased to 80% in the last three sessions. Emotional ratings were also variable during math, but overall treatment level was similar to baseline.

Adrian's math and reading work performance ranged between 10- 40% correct during baseline and improved with treatment to a range of 40-90%. Although an initial increase in work performance declined over time, 78% of the scores remained higher than baseline scores in both math and reading. Even though work level improved with treatment, work performance average was 60% for math and 61% for reading. Engagement ratings were variable during baseline but showed positive trends in engagement during both subjects after treatment. Emotional Regulation ratings in baseline were on average 90% during both reading and math and remained high with treatment on average at 93% and 95% for math and reading, respectively.

During baseline, Kara's engagement ratings consistently ranged between 70% and 80% in both math and reading. Academic performance was more variable and lower at an average of 33% in math and 50% in reading. Academic performance in math showed an increased trend to 71% during treatment. Reading performance was variable, but overall level increased to an average of 70%. Kara's emotional regulation showed an increasing trend in reading during baseline with an average of 74% and continued to increase with

more variability after treatment to 88%. In math, a decreasing trend in emotional regulation is noted baseline. With treatment, an initial increase in emotional regulation ratings changed to a decreasing trend over time although all scores remained above 70%.

During baseline on math work, Gil showed decreasing trends in both work and engagement performance with an average of 30% and 35%. Both math academic performance and engagement ratings increased following treatment to an average of 51% and 66%. Likewise, during reading, a decreasing trend is noted in baseline followed by an increasing trend in treatment on reading performance and engagement ratings. There was no consistent change in emotional regulation ratings during baseline and treatment with average means above 82% during all experimental phases.

Cameron showed variable work performance ranging between 20% and 60% in math and reading during baseline. Although Cameron's performance and engagement levels initially increased with intervention, both ratings showed a gradual declining trend that remained at or below 50% in both reading and math at the end of the study. In contrast, Cameron showed a positive trend in emotional regulation ratings while reading and math ratings during treatment decreased.

In summary, four of the five students benefited from intervention on academic performance or engagement and three of the four also benefited on emotional regulation ratings. The fifth student, Cameron, only showed gains on emotional regulation with decreased work performance and engagement over time.

Research Question 2: Is there evidence of a functional relationship between the implementation of a culturally adapted school-based anxiety treatment program and

student distress ratings?

The effects of the two experimental phases on student rated distress are presented in Figure 3. Visual inspection of student SUDS ratings showed that only two students, Daniella and Cameron showed greater distress ratings than the other participants during baseline. Daniella's distress ratings showed a positive trend during baseline that continued initially with treatment but gradually decreased after treatment. Cameron showed the consistently high ratings of distress during baseline. His distress showed a steady decrease in distress over time following treatment.

Adrian, Kara, and Gil distress ratings fell at or below 20 showing low levels of distress during baseline. Following treatment, Adrian and Gil's distress remained at a low level although Adrian's distress rose to 30 during last two sessions. Kara showed an initial increase in her distress ratings then decreased back to baseline.

*Research Question 3: To what extent will the intervention lead to changes in student -reported anxiety symptoms on *The Revised Children's Manifest Anxiety Scale-2*?*

Results on the pre and post anxiety ratings on the RCMASC-2 are shown in Table 5. Three students had high scores on the Lie scale indicative of defensiveness or social desirability, thus, may have an invalidated low Anxiety score for Adrian, Gil, and Kara. Daniella's score > 60 indicated an initial concern with anxiety in all areas. Scores improved most on physical symptoms. Cameron initial scores were slightly above the mean but showed less anxiety of the posttest on the social and worry subscales.

*Research Question 4: To what extent will students' rate the intervention as acceptable on the *Children's Intervention Rating Profile*?*

The extent to which the students accepted the interventions was assessed with administration of the CIRP following treatment (Table 8). All students perceived the interventions as acceptable as indicated by totals ranging between 29 to 33 out of a possible maximum score of 35 indicating the highest acceptability level. The average ratings were “I agree” and “I agree very much” on positive statements about the intervention. One relative lower rating suggested that there might also be other ways to handle anxiety in addition to those coping strategies in the lessons.

Table 8

Children’s Intervention Rating Profile Scores

Questions	Daniella	Adrian	Gil	Kara	Cameron	<i>M</i>	<i>SD</i>
The things used to deal with the problem were fair.	5	5	3	2	5	4.0	1.4
The teacher/parent was too harsh (mean)- reversed	5	5	5	5	5	5.0	0.0
The things used to deal with the problem might cause problems with my friends-reversed	5	5	5	3	5	4.6	0.9
There are better ways to handle this problem- reversed	4	5	3	4	4	4.0	0.7
The things used would be good for other children.	5	5	5	5	5	5.0	0.0
I like the things used to handle this problem.	5	3	5	5	5	4.6	0.9
The things used for this problem would help other children do better in school.	5	5	5	5	5	5.0	0.0
Total	34	33	31	29	34	32.2	2.2

Note. Range: 5 = I agree very much to 1 = I disagree very much.

CHAPTER V

DISCUSSION

The purpose of the current study was to evaluate the effectiveness of a brief culturally adapted CBT intervention on school performance and distress of students who were identified as showing anxiety interfering with academic performance or engagement in their classrooms. Both culturally responsive practices and EVM was used to adapt CBT components to school settings. This study extends the literature on anxiety intervention by monitoring teacher ratings of daily academic performance and engagement progress over time as well as student daily distress ratings in the school setting. Mixed teacher ratings on the academic and emotional regulation dependent variables indicated individually different responses to intervention. In sum, four of the five students showed improvements in academic engagement in both reading and math with treatment. Moreover, improved engagement corresponded with improved performance in both reading and math for Adrian, Kara, and Gil and in math for Daniella. Average work performance score improved to 70% or more for Daniella and Kara in both subjects. In contrast, academic performance remained lower than 70% correct even with treatment for Adrian and Gil indicating a potential need for additional academic supports.

Academic improvements did not correspond with a change in teacher ratings of emotional regulation. Despite the teacher's referral about students' anxiety, the teacher's ratings were surprisingly high, often above 70%, indicating appropriate emotional responses for four of the five students. Only Kara showed clear improvements in teacher emotional regulation ratings and only in math. There are many different behavioral

symptoms of anxiety, which can be hard to detect in the classroom yet all teachers, and parents reported observing signs of distress during the interviews. Either there was no actual change in emotional regulation, no change in teacher perceptions, or the definition of the DBR forms did not adequately capture the observed anxious behaviors. The SUDS ratings in this study were based on a general feeling and physiological distress rather than specific definitions or behaviors. Individualized DBRs stating specific anxiety symptoms rather than a general emotional regulation definition may prove to be more sensitive to observable behavioral change that is interfering with academics in future research. Some common observable anxiety behaviors may be giving up, frustration, negative talking, inattentiveness, clingy, and asking for constant help or reassurance. Attention and monitoring of teacher behavior change that supports and maintains interfering behaviors may also further enhance change in distress.

Additionally, student SUDS self-ratings were mixed. Cameron showed less distress when doing less work, thus avoiding the stressor, during the treatment phase. The SUDS ratings indicated more distress for Daniella and Kara than baseline when treatment was first introduced but then improved over time. Alternatively, Adrian and Gil showed consistently low distress ratings in both phases. Low scores may be due to lack of awareness or influenced by the stigma that is often related to mental illness in the Latino community. Perhaps the students (and sometimes parents) did not want to indicate that there were any problems or felt shame. High scores on the RCMAS lie ratings also reflect three students were wanting to show a better picture of themselves to the point of looking “perfect” or put what they thought that the therapist might want to see. According to the

RCMAS manual, that is something that is common.

Given the number of potential stress factors Latino student may experience in a school setting, Latino students may need training in understanding how to express what is happening and why. Adapting more culturally relevant sharing strategies or adding more intense training with students on identifying feelings of anxiety, where that anxiety is coming from, and how it is impacting may be beneficial in future studies. Daniella seemed to be the most cognizant of her stressors and how they were impacting her during the lessons. Daniella also consistently had higher distress on all ratings during baseline. The rest of the students had a lot more difficulty relating the stressors and impact on their behaviors/feelings. Perhaps adding each student's specific anxiety triggers on the SUDS ratings may help the child note when to change to more useful strategies. Of potential interest for future research, the school psychologist noted that no teacher or parent referred the participating students the following year due to anxiety or academic concerns. When queried by the school psychologist, teachers also reported no observable anxiety.

Limitations and Future Research

Although results of this study provide preliminary evidence for the effectiveness of culturally adapted intervention in school settings on academic measures, several limitations are noted. First, only five Latino participants, in upper elementary grades, with similar English language abilities, and born in the U.S., limits generalization to other populations. Second, all data was based on teacher or student perceptions. DBRs have

been found to be accepted by teachers as feasible measurement tools, useful progress estimates to provide feedback to students and teachers on academic measures (Chafouleas et al., 2012) but additional research is needed on daily measurements of social, emotional, behavioral change. Given the preliminary results of this study, future research should also include a review of student work and observation of observed on-task behaviors to further confirm treatment effects using DBRs.

Third, the cultural, cognitive, or behavioral mechanism of treatment remains unclear. The methods used in this study do not allow a conclusion about the specific cultural and language adaptation that influenced results. Given the many different Latino cultures, the added cultural adaptations to treatment may have resonated differently across students. Prior work with adults indicates that low acculturated clients show more favorable treatment responses when cultural adaptations are added to treatment as compared to more acculturated clients (Griner & Smith, 2006). The level of stress experienced by students going through acculturation to the dominant culture may also influence treatment response. These types of assessments may determine the extent that exclusive, negative messages towards cultural identity, or marginalized experiences, especially those in school settings, may need to be addressed. In this study, acculturation levels were not measured given that school districts approved the study contingent on removing the administration of the acculturation stress measure. Further, assessments of the degree that the teacher added support as students used skills during reading and math work may have helped explained mixed findings. Also, the literature on parent's role on anxiety suggests that teachers may also be using behaviors that support work or

avoidance of stressors. Future research queries on teacher consultation practices with treatment fidelity measures may enhance the understanding of school-based interventions. Finally, although treatment acceptability of the students was high, an additional analysis of teacher acceptance may reveal more information about the practicality and feasibility of the intervention.

Practical Implications in School Settings

This study adds to the growing evidence of the practicality of mental health treatment in a school setting. Results specifically support the few prior studies demonstrating the effect of anxiety treatment on academic outcomes with Latino children and youth can be accomplished in school settings (Piña et al., 2009; Varella & Hensley-Maloney, 2009). In this study, each of the students had academics reported as a trigger for their anxiety that required treatment skills to be used in the school setting when academic anxiety triggers are occurring. Students were able to utilize those skills in the setting with support from trained teachers and trained psychologists and counselors in real time. Several strategies focused on feasibility and school strengths. First, assessments conducted in school settings allowed a functional approach to identifying anxiety behavior antecedents and consequences and frequent monitoring of treatment outcome. Second, shortened sessions given two times a week made the treatment feasible and may be more workable with limited loss of academic time for the student. Third, teacher interview, training, and brief check-ins were conducted using consultation with a school psychologist. The lack of change in distress ratings and low work performance, however,

suggests that additional coping training or classrooms supports to use coping supports or to complete work as expected may be needed for some students. Students who work hard and still achieve low accuracy are likely to find that staying engaged in hard work is more stressful than giving up and, thus, may require additional academic supports.

Regarding cultural adaptations, the high student acceptance ratings may have been in part due to the incorporation of Latino culture and values into the lessons. Anecdotally, each of the students expressed having a positive experience, often stopped by the school psychologist's office, and asked if they could continue coming to lessons. Knowing that there is a program that the students were engaged in, enjoyed, and were able to apply is the first step in their ability to manage their anxiety in anxiety-provoking situations.

Classroom learning and coping with academic demands in American schools is typically based on dominant European American culture resulting in limited knowledge of learning options and strengths across cultures. Thus, awareness of the importance to actively seek input about cultural values, norms, and beliefs allow school psychologists to map culture into classroom interventions to match learning strengths and enhance student and teacher comfort in adding cultural ways. Although questions were asked with parents to map culture relevance into treatment, questions were asked informally to students throughout the treatment. Perhaps adding formalized queries such as those used with parents may identify more acceptable skills or strategies to meet academic demands. For example, asking students about what do they want to happen when using a skill, what behaviors presented or new behaviors would work best for things to go well, or what

behaviors they would avoid. These types of queries with flexible treatment course planning can help identify culture-specific strategies or mechanisms that support positive outcomes. Time may be a factor when working with Latino students and families to learn best supports when making decisions about services for their child. If more time is an option, phone calls home to check in, and perhaps even in person meetings to support relationships between the therapist and the parents could be beneficial for treatment planning.

In sum, given that anxiety can impair academic engagement and performance, these preliminary results suggest that exposure-based CBT in a school setting is a promising treatment for anxiety disorders in Latino youth that disrupt academic outcomes. These results certainly need to be extended to examine how to derive cultural adaptation of CBT with students identifying with various Latino cultures. Continuing this line of research is warranted to enhance further the cultural competence of school psychologists working to reduce stress and anxiety that Latino students are experiencing in American schools.

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APPENDICES

Appendix A

Direct Academic Behavior Rating Form

Direct Behavior Ratings Tracker

Academically Engaged: Actively or passively participating in the classroom academic activity. For example: writing, raising hand, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials.

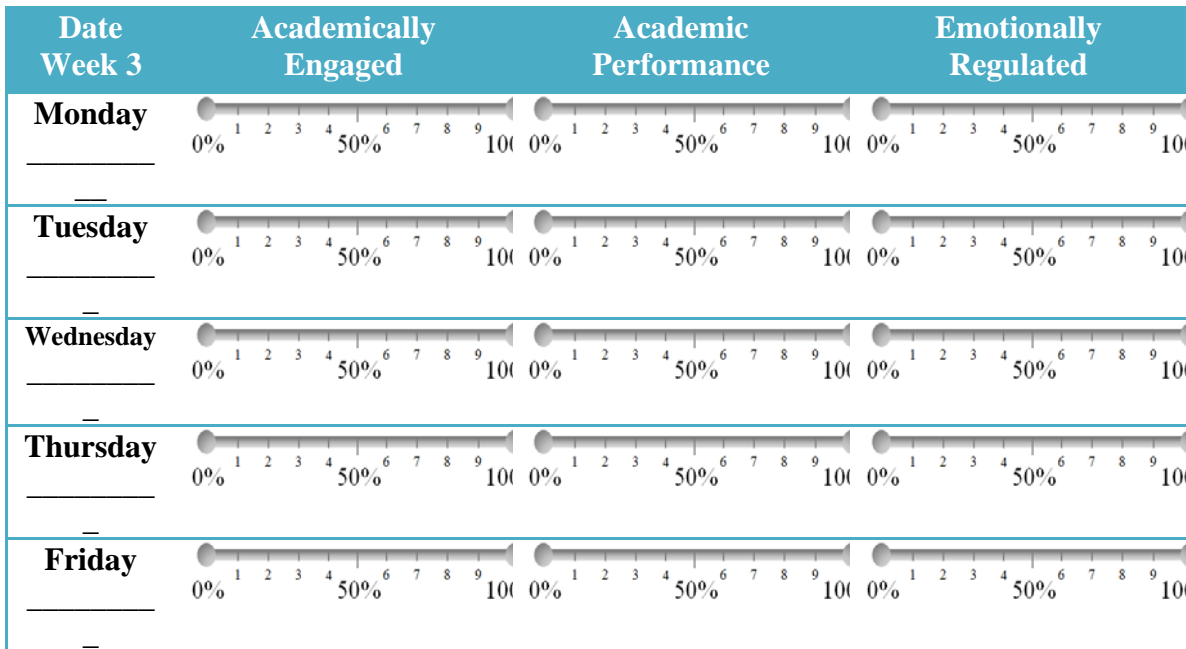
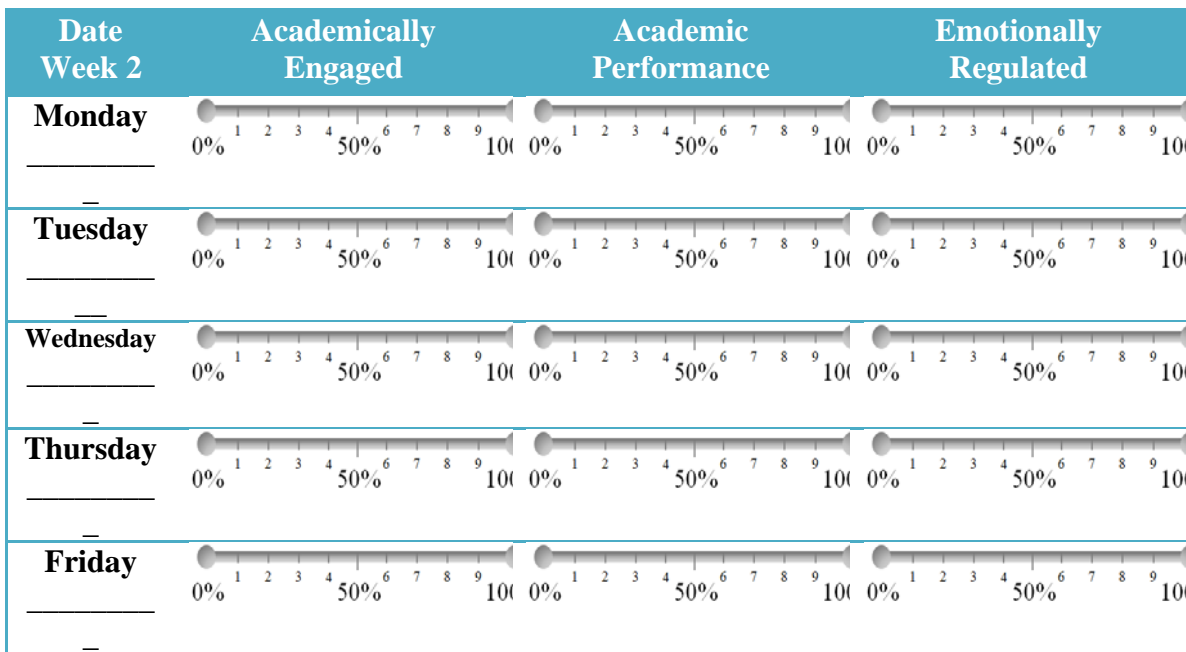
Academic Performance: Completing work at or above 80% accuracy with appropriate teacher help (i.e., answering several questions or a teacher check for understanding).

Emotional Regulation: Responding to classroom experiences with a range of emotions that are flexible and socially acceptable and uses effective coping strategies. For example: stays calm, solves problems and conflicts, controls moods and actions, talks about feelings and concerns, asks others for help, uses positive or “can do” statements about self or others, makes good choices.

Directions: Write the percentage that best reflects the percentage of total time the student exhibited each target behavior. Note that the percentages do not need to total 100% across behaviors since some behaviors may co-occur.

Student Name _____

Date Week 1	Academically Engaged	Academic Performance	Emotionally Regulated
Monday _____			
Tuesday _____			
Wednesday _____			
Thursday _____			
Friday _____			



Date Week 4	Academically Engaged	Academic Performance	Emotionally Regulated
Monday _____			
Tuesday _____			
Wednesday _____			
Thursday _____			
Friday _____			

Appendix B
Student Anxiety Rating Form

Student Anxiety Rating Form

Date: _____

Rate your highest feeling in class today



- 80 Flipping out
- 70 A lot- Eeek!
- 60 Oh my gosh!
- 50 Danger ahead.
- 40 Getting Harder
- 30 Little stressed.
- 20 OK stress and doing good
- 10 Cool and happy

Appendix C

Children's Intervention Rating Profile

Children's Intervention Rating Profile

We are very interested in learning your ideas about the program that you are now finishing. Below are some sentences. You may or may not agree with the sentences. For each one, please circle the number that describes how much you agree or disagree with the statement. Use the following guide:

- 1 = I agree very much
- 2 = I sort of agree
- 3 = I don't agree or disagree
- 4 = I sort of disagree
- 5 = I disagree very much

For example, mark how much you agree with this statement:

	very much	I agree	I disagree			
	very much					
	I love pizza.	1	2	3	4	5

	very much	I agree	I disagree			
	very much					
1.	The things used to deal with the problem were fair.	1	2	3	4	5
2.	The teacher/parent was too harsh (mean).	1	2	3	4	5
3.	The things used to deal with the problem might cause problems with my friends.	1	2	3	4	5
4.	There are better ways to handle this problem.	1	2	3	4	5
5.	The things used would be good for other children.	1	2	3	4	5
6.	I like the things used to handle this problem.	1	2	3	4	5
7.	The things used for this problem would help other children do better in school.	1	2	3	4	5

Appendix D
Teacher Nomination Form

Teacher Nomination Form

A number of students regularly seen in classrooms are experiencing levels of nervousness, stress or worry that interferes to some degree on their functioning in school work or / and with relationships with teachers or peers. I am interested in identifying those students who are more shy, distressed and/or are more worried than other children his or her age. Some children may be rather quiet, shy, cautious and withdrawn. Other students may act out with frustration, crying, and avoidance. Often these children just can't seem to relax and show restlessness; difficulty concentrating; fidgeting; edginess; fatigue; and stomach aches.

I am conducting a study with children who would benefit from improvement in a training program designed to teach and support children a number of different ways of thinking, behaving, and reacting to situations that help him or her feel less nervous and worried. We are specifically evaluating a culturally responsive designed program for Latino students.

After obtaining parent permission to participate in a study investigating this training program, these students would work me for 6 to 8 weeks for about 30 minutes a week. I will also work closely with student's teacher to determine how to work with students so that they do not miss school work.

Please mark the box below, write your initials and grade if you have a Latino student who may benefit from this study and I will contact you about the student.

Thank you,

Emilie J. Larsen
School Psychologist
emlarsen@dmail.net

- Teacher initials ___ and Grade: ___ Yes, I have one or more students who may benefit from this training:**

Appendix E
Informed Consent Letter

Informed Consent Letter (English)

Introduction/ Purpose: Professor Donna Gilbertson and graduate student Emilie Larsen, both in the Department of Psychology at Utah State University are conducting a research study to find out more about a way to teach students how to lower and cope with worries or nervousness that is getting in the way of successful school performance. You have been asked to take part because you are a parent of a child who may benefit from help in learning skills to better cope with worries or nervousness. There will be approximately four students who participate in this research.

Procedures: If you give permission for your child to be in this research study, the following will happen to you and your child.

Your child will work with researchers for 6 to 8 weeks on the following steps.

- 1) You will be asked to complete the attached sheet about your child. Please turn in the sheet with this form if you wish for your child to participate in this program. Children will receive a small incentive (candy, toy, etc.) for returning the packet, regardless of whether their parents allow them to participate.
- 2) We will meet with your child's teacher for about 15 minutes and with your child to give several questionnaires for about 20 minutes to gather information about what may help your child. Your child will be observed during recess for about 10 minutes and asked to rate their worry-level on a thermometer rating that day for three to twelve recess times.
- 3) Your child will work with Emilie Larsen for 4 to 6 weeks on the following steps. Your child will be included in six 30-minute classes with Emilie Larsen to teach: ways to cope with worry, how to recognize and express feelings, goal setting, and role plays to practice these skills. Once these sessions are complete, your child will be given the opportunity to practice these skills in a real-life setting at school with the supervision of the researcher. Your child will be given weekly activities sent home to work with on with the family.
- 4) At the end of the study, your child will complete assessments to report how successful the skills were in decreasing / managing their worries or nervousness.

Alternative Procedures Instead of participating in this research, an alternative for you to consider would be to contact your school psychologist or counselor for other school based supports.

New Findings During the course of this research study, you will be informed of any significant new findings (either good or bad), changes in the procedures, risks or benefits resulting from participation in the research, or new alternatives to participation that might cause you to change your mind about continuing in the study. If necessary, your consent to continue participating in this study will be obtained again.

Risks: Participation in this research study may involve some added risks or discomforts.

There is also a small risk for loss of confidentiality, but we will take steps to reduce this risk as described below. Another foreseeable harm is that some students may experience discomfort from answering some of the questions on the questionnaires or during our lessons. Participants may skip any questions that he or she chooses not to answer. Students will be earning a small toy or school supply to help reduce frustrational behaviors. Finally, your child will miss about 30 minutes of class time 1 day a week for 4 to 6 weeks. We will also work closely with teachers to determine the best time to work with children so that minimal school work is missed.

Benefits: This program is likely to directly benefit your child by giving him/her the opportunity to learn ways to handle worries that are getting in the way of school work. Teachers will also learn ways to help support your child as he or she learns to use skills during the school day. Results of intervention will be shared with parents so that parents may learn ways to also support their child at home. Finally, the information gained by this study may potentially help educators learn more about how to support children who are worry a lot to improve school performance.

Explanation & offer to answer questions: Emilie Larsen has explained this research study to you and answered your questions. If you have other questions or research-related problems, you may reach Donna Gilbertson at (435) 797-2034 or donna.gilbertson@usu.edu. You may also contact the principal at your school: Kristy Nelson (801) 402-2400 at Holt Elementary) or Debbie Marshall 801-402-7300 at Ellison Park Elementary.)

Voluntary nature of participation and right to withdraw without consequence: Participation in research is entirely voluntary. You may refuse to participate or refuse to have your child participate in this study at any time. You may withdraw or your child may ask to be withdrawn from the study at any time without consequence or loss of benefits. Contact Emilie Larsen at your child's school if you would like to ask questions or to be withdrawn from the study. Your child may also be withdrawn from this study without your consent by the researcher if the study is interfering with your child's schoolwork. We will contact you if your child is to be withdrawn.

Confidentiality: Research records will be kept confidential, consistent with federal and state regulations. To protect your privacy, personal, identifiable information will not be included on any study documents. A code will be used in place of your name and the name of your child on all documents and data. Your responses to questionnaires will also be stored with a code and stored separately from your name in locked file in a locked room; it will not be linked to your personal identifying information. All identifying information will be destroyed as soon as all coded data is entered in a protected password computer. Only the principal investigator and student researcher will have access to the coded data. A report will be prepared at the end of this study with no individual results reported in the summary.

IRB Approval Statement: The Institutional Review Board for the protection of human participants at USU has approved this research study. If you have any pertinent questions or concerns about your rights or a research-related injury, you may contact the IRB Administrator at (435) 797-0567 or email irb@usu.edu. If you have a concern or complaint about the research and you would like to contact someone other than the research team, you may contact the IRB Administrator to obtain information or to offer input.

Copy of consent: You have been given two copies of this Informed Consent. Please sign both copies and keep one copy for your files.

Investigator Statement: “I certify that the research study has been explained to the individual, by me or my research staff, and that the individual understands the nature and purpose, the possible risks and benefits associated with taking part in this research study. Any questions that have been raised have been answered.”

Donna Gilbertson, PhD
Principal Investigator
(435) 797-2034
donna.gilbertson@usu.edu

Emilie Larsen, MA
Student Researcher
801-402-2400 (ext 22413) at Holt El.
801-402-7300 (ext. 2418) at Ellison Park El.
emlarsen@dsdmail.net

Signature of participant’s parent or legal guardian By signing below, I agree to allow my child to participate.

Parent or Guardian

Date

Relationship to Participant: _____ **Name of Child** _____

Child/Youth Assent: I understand that my parent(s)/guardian is/are aware of this research study and that permission has been given for me to participate. I understand that it is up to me to participate even if my parents say yes. If I do not want to be in this study, I do not have to and no one will be upset if I don’t want to participate or if I change my mind later and want to stop. I can ask any questions that I have about this study now or later. By signing below, I agree to participate.

Name

Date

Appendix F
Child and Parent Information

Parent Information

- 1) Your gender (Check one): Male Female
- 2) Relationship to child (Check one):
 Biological parent Adoptive parent Legal guardian Step-parent
 Other _____
- 3) What country was your child's father born in? _____
- 4) What country was your child's mother born in? _____
- 5) Were any of your child's grandparents born outside of the U.S.? Yes No
- 6) What is your highest level of education (check one)?

Mother

- Graduate School 4 Year College Some College
- Community College Technical/Vocational school
- High School Less than high school
- Other: Please Specify _____

Father

- Graduate School 4 Year College Some College
- Community College Technical/Vocational school
- High School Less than high school
- Other: Please Specify _____

Child Information

1) Child's age: _____ Birth date (month/date/year): _____

2) Child's grade level: _____

3) Child's gender: male female

4) Your child's native language: English Spanish other _____

5) What country was your child born in? _____

6) How many years has your child lived in an English speaking country? _____

7) What is the primary language at home? English Spanish Other _____

8) How often is English spoken at home? Not at all Some Always

9) Has or is your child receiving ELL services? yes no

For how many years? _____

10) Has your child ever been diagnosed with any psychological and/or behavioral disorders?

No Yes (Please specify which ones: _____)

Appendix G

Teacher Problem Identification Interview - Modified

Teacher Problem Identification Interview – Modified

Student: _____ Grade: _____ Date: _____

Thank you for taking the time to meet with me. My goal is for me to start getting a better understanding about what may help the child. Today I would like to ask you some questions about your concerns about the child.

First, relative to other student in your class, is this student doing fine (yes) or not (no)?

_____ Reading _____ Math _____ Writing _____ Other academic concern?

_____ Work completion

_____ Following directions and classroom rules

_____ Social behaviors with peers

Are there specific problems with his or her worrying that concerns you? What does the child do when he or she is nervous? What does the child **NOT** do when he or she is nervous?

About how many times a day? Or week does this occur?

When does the problem behavior occur the most?

When does the problem behavior not occur? Or when does it occur the least?

Relative to other student in your class, is this student doing fine (yes) or not (no)?

_____ Confidence and positive statements/beliefs about self

_____ Social skills

_____ Problem solving skills

_____ Emotional regulation

_____ Coping skills

_____ Social support

Summarize statement.

“You are most concerned with . . . and this problem occurs about . . . times per day. Is that right?”

Now I will be asking some questions to get an idea about what it would look like when I observe this problem. As I ask questions, please give me specific examples.

What happens before worrying behaviors occurs? Are you aware of anything that appears to cause the student to worry? What things seem to set him or her off?

What happens when the student worries? What do you or other adults typically do?

What do the student’s peers typically do?

Is there anything that he/she seems to get out of or avoid when the student is nervous or worries? (work, social activities, etc.)

Is there anything that he/she seems to avoid so that he or she does not experience worry?

Summarize ABC statement:

“You said it appears that the problem behavior often occurs when . . . and when or after the behavior occurs then several things happen . . . Does this sound correct?”

Let me ask about what behaviors are expected or some goals. What would you like to see the child do?

Summarize Problem with Expectations: Let’s see. The main problem is . . . However, he/she needs to . . . Is that right?

Are there incentives already in place to do the expected behavior in your classroom? How often can they earn something?

What is the child good at? What are the child’s strengths?

Appendix H
Student Interview Form

Student Interview Form

Everyone has easy times at school and have things that they really like about school. And everyone has some times when things are harder for them or times when they have problems and worries. Children often feel like there are jumping jelly beans in their belly during problem or worry times. They don't really have jumping beans in the belly but it feels like that sometimes. Some children feel nervous or jittery. What are some things that kids worry about or get that jumping jelly bean feeling at school?

But everyone would say that different things are easy and different thing are hard. I would like to ask you some questions to find out the easiest and hardest time for you.

When do you think that you have the fewest problems in school? When is it easiest for you? (When, Where, Who?)

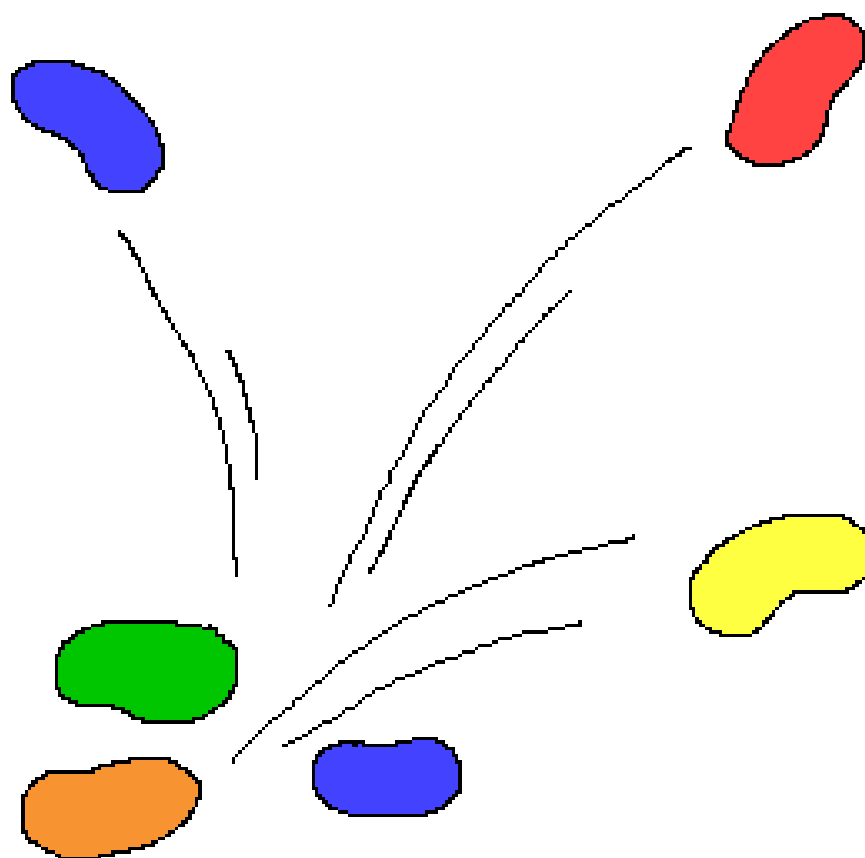
What are your favorite activities at school? Who are your favorite adults? Who are your favorite friends?

Now let's talk about the harder times at school. Here are three jumping beans like the jumpy feeling everyone gets in their belly at times. Let's write down some things that are the hardest for you or worry times in school. We have high jumping jelly beans and low jumping jelly beans in the picture. What is a lowest and highest jumping bean feeling worry or problem time? (write in - if no answer- check each class, friends? What is troubling you this week?)

Why do you think you do have problems or worry times? (Just check –go on if no answer).

What changes could be made so you would have fewer problems with _____?

High jumpers



Low jumpers

Appendix I
Parent Interview Form

