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Development and Preliminary Evaluation of a 1-Week Summer Treatment Program for Separation Anxiety Disorder

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Abstract

Numerous clinical trials have demonstrated the efficacy of cognitive behavior therapy (CBT) for the treatment of childhood Separation Anxiety Disorder (SAD) and other anxiety disorders (Velting, Setzer, & Albano, 2004), yet additional research may still be needed to better access and engage anxious youth (Kendall, Suveg, & Kingery, 2006). In this study, we investigated the acceptability and preliminary utility of a group cognitive-behavioral intervention for school-aged girls with SAD provided within an intensive, 1-week setting. The development of the proposed treatment strategy, a 1-week summer treatment program, was predicated on evidence supporting the need for childhood treatments that are developmentally sensitive, allow for creative application of intervention components, incorporate a child's social context, and ultimately establish new pathways for dissemination to the community. The summer treatment program for SAD was pilot-tested using a case-series design with 5 female children, aged 8 to 11, each with a principal diagnosis of SAD. For 4 of the 5 participants, treatment gains were evidenced by changes in diagnostic status, significant reductions in measures of avoidance, and improvements on self- and parent-report measures of anxiety symptomology. Specifically, severity of SAD symptoms decreased substantially at posttreatment for each participant and, 2 months following treatment, none of the participants met diagnostic criteria for the disorder. A fifth participant experienced substantive improvement in diagnostic status prior to the onset of treatment and, though she evidenced continued improvements following treatment, the role of the intervention in such improvements is less clear.

Separation Anxiety Disorder (SAD) is the most prominent and impairing childhood anxiety disorder, accounting for one half of the referrals for mental health treatment of anxiety disorders (Bell-Dolan, 1995; Cartwright-Hatton, McNicol, & Doubleday, 2006). Epidemiological research suggests that 4.1% of children show a clinical level of separation anxiety, and that approximately one third of these childhood cases (36.1%) persist into adulthood (Shear, Jin, Ruscio, Walters, & Kessler, 2006). SAD has also been associated with a heightened risk for the development of additional anxiety and depressive disorders, such as panic disorder, in adolescence and adulthood (Biederman et al., 2005; Lease & Strauss, 1993).

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Research supports the efficacy of cognitive-behavioral treatment (CBT) procedures with anxious youth (see Velting et al., 2004), including those with SAD. Treatment outcome has been repeatedly evaluated through randomized clinical trials and, given the existent body of empirical support (for a review, see Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, & Harrington, 2004), CBT may now be considered a “probably efficacious” treatment for SAD, Generalized Anxiety Disorder, and Social Phobia among school-aged children and young adolescents (Society of Clinical Child and Adolescent Psychology & the Network on Youth Mental Health, n.d.). Other cognitive-behavioral protocols tailored specifically for SAD have been proposed based on the specific needs of this population. Admittedly, these SAD-specific treatments are relatively few in number and/or earlier in their research development. For instance, Parent-Child Interaction Therapy adapted for young children with SAD (Pincus, Santucci, Ehrenreich, & Eyberg, in press) is currently being evaluated through a randomized controlled trial (RCT). Despite empirical support, however, additional research is still needed to further develop and better disseminate cognitive-behavioral treatments for anxious youth (Kendall et al., 2006; Weisz, Jensen, & McLeod, 2005). Along these lines, a recent meta-analysis using 20 RCTs of CBT for anxiety disorders in youth found a mean effect size of $d = 0.61$ when comparing CBT to control groups (Ishikawa, Okajima, & Matsuoka, & Sakano, 2007). While representing a moderate proportion of all RCTs of CBT for child anxiety, these results indicate that CBT is a beneficial intervention for children with anxiety disorders. Debate certainly exists about the clinical utility of such RCTs and their importance to community clinicians relative to “usual care” (e.g., Westen, Novotny, & Thompson-Brenner, 2004). Regardless, one can safely interpret this effect size as suggestive of some room for enhancement, modification, or adaptation of evidence-based treatments for childhood anxiety.

The current study investigated the acceptability and preliminary utility of a cognitive-behavioral intervention for school-aged girls with SAD that was provided within a 1-week, intensive group setting. This alternative treatment strategy was predicated on evidence supporting the need for childhood treatments that allow for creative and developmentally sensitive application of intervention components, incorporate a child’s social context, target relevant parenting variables, and may be ultimately disseminable to the community. The summer treatment program was referred to as “Camp CARD [Center for Anxiety and Related Disorders]” in communications with and among its participants, although it was conducted in a traditional research clinic environment. Moreover, the aim of this summer treatment program was not to replace traditional CBT for anxious youth, but to package an intervention with known, potentially efficacious elements in a novel way, in the hope of reaching even more children with separation anxiety. At this early stage of treatment development—the first in a process of adaptation and testing to eventually maximize impact within real-life practice settings—we endeavored establish the program’s preliminary feasibility and acceptability at our site. This initial step is consistent with the deployment-focused model of intervention development and testing (Weisz et al., 2005), whereby it is appropriate to first develop, refine, and pilot novel treatments before conducting an initial efficacy trial under controlled conditions. Following an initial efficacy trial, Weisz et al. suggest that it is advisable to progress to effectiveness and implementation testing in community settings.

Researchers have previously suggested that CBT should be modified to better meet the specific developmental needs of the children receiving such services (Kingery et al., 2006). Yet, it may not be sufficient for these developmental adaptations to be based on age alone; a child’s cognitive, social, and emotional development should also be considered. Toward this goal, creative strategies and enjoyable activities may be invoked to effectively engage children in treatment, as many children may not be motivated to receive such help (Piacentini & Bergman, 2001). For instance, Friedberg and McClure (2002) recommend

incorporating into treatment developmentally appropriate tasks that are active, enjoyable, and integrate a child's preferred activities wherever possible.

A potential benefit of an intensive group approach to the treatment of anxiety is the incorporation of children's social context. Research indicates that CBT interventions for childhood anxiety disorders can be effectively delivered in a group format, and the effects of group versus individual treatments for child anxiety have been shown to be largely equivocal in terms of posttreatment outcome (Barrett, 1998; Flannery-Schroeder, Choudhury, & Kendall, 2005; Silverman et al., 1999). Nonetheless, a group atmosphere may be particularly advantageous for certain children, as this environment may bring with it opportunities for social interaction with peers, a potential decrease of stigma, and avenues for modeling the approach to feared situations and stimuli (Kazdin, 1994). Given the avoidance of activities involving other peers often demonstrated by children with SAD (e.g., play-dates, sleepovers, camp, extracurricular activities), the authors theorize that a group format might be of particular benefit to this population due to the peer interaction and social activity it encourages. In addition, the group setting may provide unique opportunities for exposure not easily replicated in the individual treatment context. While most studies have indicated that this advantage makes the group setting particularly helpful for the conduct of social phobia exposures (Beidel & Turner, 2007), this setting also allows for more naturalistic exposure possibilities regarding typical separation situations, such as those inherent in group field trips, day camps, and sleepovers. This potential benefit has also been suggested by Masia-Warner et al. (2005), who found that a school-based, group intervention for SAD enabled participants to conduct exposures in realistic contexts. Moreover, Moos (1984) found that participants are more strongly affected by groups that are intensive, committed, and socially integrated. Research also suggests that the effectiveness of group treatment is related to the cohesiveness of its members, defined by a sense of bonding, identification, and effort toward common goals (Marziali, Munroe-Blum, & McCleary, 1997). Based on these findings, it is possible that groups with a high degree of commonality (i.e., similar in age, gender, primary diagnosis, etc.) might maximize cohesiveness among its members. Thus, group treatment delivery in an intensive setting that encourages participation in enjoyable activities with peers who share a number of common factors may have the potential to facilitate symptom improvement while engaging children in necessary and difficult-to-arrange separation exposures (Barrett, 1998; Flannery-Schroeder et al., 2005).

When considering treatment development issues for a particular disorder such as SAD, it is also vital to attend to variables relevant to that disorder's development. Etiological models of anxiety have argued for the importance of parenting factors as central to the development and maintenance of an array of anxiety disorders, including SAD (Chorpita & Barlow, 1998; Rapee, 2001). Research examining this relationship has frequently focused on overprotective and over involved parenting behaviors. In this context, intrusive parenting is characterized by disproportionate regulation of the child's emotions and behavior as well as autocratic decision-making. These intrusive parental behaviors, aimed at reducing or preventing the child's distress, may instead encourage the child's dependence on parents, thus affecting the child's perceptions of mastery over the environment (for a review, see Wood, McLeod, Sigman, Hwang, & Chu, 2003). Furthermore, parental intrusiveness appears to be a specific risk factor for SAD among children with anxiety disorder diagnoses (Wood, 2006). Therefore, parenting intervention components from efficacious treatments for child anxiety disorders as well as relevant literature concerning parenting factors related to child anxiety (Howard, Chu, Krain, Marrs-Garcia, & Kendall, 2000; Siqueland, Kendall, & Steinberg, 1996; Whaley, Pinto, & Sigman, 1999; Wood, 2006) were incorporated into this initial pilot study (see the Intervention section and Table 1 for further discussion of specific parenting skills selected for this intervention).

For this initial investigation, the summer treatment program for SAD was administered on a daily basis for 7 consecutive days. Preliminary evidence suggests that this intensive format of treatment is efficacious with youth exhibiting other types of anxiety disorders. For instance, a recent open trial investigation examining the initial utility of an 8-day intensive treatment for adolescent Panic Disorder and Agoraphobia (PDA; a disorder often linked etiologically to SAD [e.g., Biederman, et al., 2005, etc.]) found that this brief but intensive form of daily therapy can effectively reduce panic and anxiety symptomology at posttreatment and 1-month follow-up (Pincus, Barlow, & Spiegel, 2004). Similar to those with PDA, children with SAD often avoid a host of developmentally appropriate activities, such as camp, social activities, and sleepovers with friends, suggesting the need for exposure techniques to address these situations during the course of CBT. Unfortunately, as in the case of PDA, typical 1-hour clinic visits may provide little time for therapists to arrange these types of naturalistic and peer-involved exposure activities. Intensive formats varying in length have also been recently implemented with youth experiencing other anxiety disorders. Research provides initial support for the use of intensive CBT with pediatric OCD patients who have had an inadequate response to medication treatment. Participants received 14 sessions of family-based CBT lasting 90 minutes each over a period of 3 weeks, according to a protocol by Storch and colleagues (Lewin et al., 2005; Storch et al., 2007). Preliminary analyses indicated that the vast majority of participants were treatment responders and had significant reductions on measures of OCD severity. In addition, the “One-Session Treatment,” a 3-hour, exposure-based CBT treatment program for Specific Phobia in youth has also demonstrated preliminary efficacy. In an RCT being conducted in America and Sweden with approximately 200 youth to date, 60% of participants are thus far reported to be free of diagnosis at posttreatment, with 75% diagnosis-free at 1-year follow-up (Ollendick & Öst, 2007). Based on this evidence, an intensive, week-long therapy program may have the potential to improve the lives of children with SAD by incorporating exposure activities into daily sessions and potentially enabling participants to rapidly participate in developmentally appropriate activities, without their parents, that can facilitate future adolescent and adult social and emotional adjustment.

The current pilot study examined whether efficacious components of CBT for childhood anxiety can be effectively presented over summer vacation in a brief but intensive group setting. By providing treatment in a creative manner that emphasized the social context, including the use of developmentally-sensitive activities, peer relationship building, and appropriate levels of parenting involvement, we anticipated that participants and their parents would find this intensive group approach satisfying and helpful. Specifically, it was hypothesized that children would experience a decrease in anxiety symptoms while also demonstrating decreased avoidance of developmentally appropriate activities requiring separation from a caregiver.

METHOD

Participants

Overview of Sample Characteristics—The summer treatment program for SAD was pilot tested with five female children¹, aged 8 to 11, each with a principal diagnosis of SAD. Four of the participants were Caucasian and 1 participant was Latina. An average family income of over \$100,000 was reported (see Table 2 for a description of participant characteristics). The education level of the parents was also quite high, ranging from bachelor’s degree to doctorate. None of the participants were prescribed any psychotropic medications at any point during the study. Three of the participants received some degree of previous psychological treatment; however, in each case, SAD symptomology and interference remained at a clinical level prior to enrollment in the summer treatment

program. Within this case-series design, participants were assigned to varying waitlist periods (1 to 6 weeks prior to group treatment onset) based on point of entry into the study.

Inclusion and Exclusion Criteria—Children were eligible for participation in the study if they were (a) female; (b) between 8 and 12 years of age; (c) assigned a diagnosis of principal or co-principal SAD based on *DSM-IV* criteria. It was decided that only females would be included at this stage in treatment development. This choice was a pragmatic one, as treatment involved a therapeutic sleepover for which a single gender group would be most acceptable to parents and participants, as well as a method of enhancing group cohesion (Marziali et al., 1997). The age range of 8 to 12 was chosen largely because another study was concurrently underway within our clinic for separation-anxious youth under age 8. Due to the difficulty of recruiting participants to both studies simultaneously, we chose not to greatly overlap the age range of our two samples. From a different, yet also pragmatic point of view, the authors felt sleepover away from parents might not be an appropriate expectation for children under the age of 7 or acceptable to their parents, while the interactive, creative tone set forth by the program might not be well-suited for more mature adolescents. Finally, while several controlled studies have demonstrated the efficacy of CBT for anxiety disorders in children and adolescents (e.g., Barrett, Dadds, & Rapee, 1996; Kendall, 1994; Kendall et al., 1997), the majority of these investigations have excluded youth under the age of 7. Thus, we chose this age range to best represent those children for whom CBT has the strongest evidence base, though this base has admittedly expanded in recent years for much younger children with anxiety disorders (Hirshfeld-Becker & Biederman, 2002; Task Force on Research Diagnostic Criteria, 2003). Exclusion criteria included: (a) comorbid diagnoses of bipolar disorder or a psychotic disorder or (b) acute suicidal intent.

Qualitative Description of Each Participant

Participant 1: Participant 1 was a 10-year-old Caucasian female who received five sessions of individual CBT targeting her specific phobia of vomiting prior to enrollment in the summer treatment program. However, no separation-related exposures were conducted during this time. Once enrolled in the current study, Participant 1 was assigned a principal diagnosis of SAD (Clinical Severity Rating [CSR] = 5, derived from the ADIS-IV-C/P; Silverman & Albano, 1997; see Measures) at both the 6-week baseline assessment and the pretreatment assessment. Participant 1 voiced fears about attending school on a daily basis because she missed her mother. Moreover, prior to summer vacation, she was visiting the school nurse approximately twice per week due to her anxiety. In addition to separating for school in the morning, Participant 1 was avoiding the following distressing separation situations: staying home alone for a brief period of time, staying with a babysitter, and sleepovers. When staying with a babysitter for an evening, Participant 1 would tearfully call her parents multiple times. During separation situations, Participant 1 typically reported

¹Participant 2 was an 8-year-old Caucasian female who was assigned a principal diagnosis of SAD at the 4-week baseline assessment (CSR = 6), which improved during the month-long baseline period but remained clinical at pretreatment assessment (CSR = 4) immediately prior to treatment. At the initial baseline assessment, Participant 2 was also assigned a clinical diagnosis of Generalized Anxiety Disorder (CSR = 5) and Social Phobia (CSR = 5). However, Participant 2 no longer met diagnostic criteria for either disorder at the pretreatment assessment point. One explanation for the fluctuation in severity of Participant 2's anxiety across diagnoses may have been the reactivity of her symptoms to changes occurring in her family structure prior to the baseline time period. Participant 2's parents separated prior to the first assessment, after which her parents reported an exacerbation of her anxiety. In addition, some of the school-related stressors experienced by Participant 2 may have been alleviated during the baseline period, as summer vacation started during the interval between her initial baseline assessment and the pretreatment assessment 4 weeks later. Although this improvement was dramatic, Participant 2 and her parents concurred that her SAD symptoms remained at a clinically severe level prior to the onset of this summer treatment program. Due to her observed improvement across anxiety diagnoses during baseline period, discussion of her outcomes following treatment is inevitably tempered by the possibility that she was on a trajectory of improvement prior to treatment onset and that the treatment itself may not have contributed to her gains. For this reason, Participant 2's course of treatment and subsequent results have been omitted from the manuscript.

experiencing headaches and nausea. She was also assigned a clinical diagnosis of Specific Phobia (Other Type; CSR = 4) to account for her persistent and excessive fear of vomiting. This diagnosis led to daily reassurance seeking (e.g., “is this okay to eat”; “promise me I won’t get sick”), hypervigilance to her somatic symptoms, and avoidance of situations and people (e.g., those who are ill) that could lead to illness or vomiting, even when in the presence of her parents.

Participant 2: As noted above, this participant’s clinical description, course of treatment, and outcome have been omitted from this manuscript due to improvement during the waitlist period.

Participant 3: This participant was an 11-year-old Caucasian female assigned a principal diagnosis of SAD (CSR = 6) at the 2-week waitlist assessment, the severity of which remained stable across the baseline period (CSR = 6 at pretreatment assessment). For approximately 8 months prior to the summer treatment program, Participant 3 experienced great distress when separating from her mother in the morning and at bedtime, participating in sleepovers at her own house or at a friend’s house, attending play-dates, and being on a different floor of the house than her sister or parents. Participant 3 frequently refused outright to engage in these activities. Going to sleep was a particularly anxiety-provoking situation for her: she often refused to go to sleep, begged her sister to sleep with her, or woke several times during the night to enter her parent’s room. During real or anticipated separation, Participant 3 frequently became tearful and experienced physical symptoms of anxiety, particularly nausea. In addition to SAD, Participant 3 was assigned a co-principal diagnosis of Specific Phobia, Other Type (CSR = 6) to account for her persistent and excessive fear of vomiting, which was found to be as clinically interfering as her separation anxiety. Participant 3 reportedly experienced distress or avoided a number of situations due to her fear of vomiting, including eating, people who are ill, the school cafeteria, physical education class, and sports. She also worried consistently about waking up at night and vomiting. Other comorbid diagnoses assigned included Generalized Anxiety Disorder (CSR = 5 at pretreatment) to account for persistent and excessive worry in the areas of performance, interpersonal functioning, small matters, perfectionism, and personal safety beyond her separation-related fears, as well as the physical symptoms that accompanied her worry; and Specific Phobia, Blood Injection Injury (CSR = 4 at pretreatment), due to Participant 3’s distress when having to get an injection. Her mother described needing to physically restrain her in this situation, as well as excessive questioning about the likelihood of getting a shot around each doctor’s appointment. Lastly, Participant 3 was given a provisional diagnosis of Agoraphobia (CSR = 6) at the pretreatment assessment, as provisional diagnoses are assigned severity ratings at our treatment site. “Provisional” diagnosis is a term used throughout medicine to indicate that the clinician believes a particular condition is most likely to be present, but that its presence has not been adequately proved. She reportedly avoided many situations due to fear of getting sick or feeling that “everything is closing in” on her, such as riding in a car, taking public transportation, and physical activity, which reportedly elicited her feared sensations. However, due to her diagnosis of Specific Phobia of vomiting, Agoraphobia was assigned only provisionally as it was unclear at the time of the assessment whether this situational avoidance could be subsumed under her fear of vomiting.

Participant 4: This 8-year-old Latina female, adopted from another country when she was 8 months old, received 18 sessions of individual CBT prior to enrollment in the summer treatment program, focusing exclusively on a fear of being in large cities following from what was conceptualized as a traumatic incident. Participant 4 was assigned a principal diagnosis of SAD (CSR = 5) at both the 1-week baseline and pretreatment assessments. Her parents reported that she experienced distress and subsequently attempted to avoid a number

of developmentally appropriate separation situations. For instance, she was excessively fearful when separating before school or camp in the morning, as well as when staying with a babysitter. Her parents added that she was unable to go to bed without procrastinating, remain at a sleepover throughout the night, or sleep in her own room alone. Because of her bedtime distress, her parents frequently slept in her room.

Participant 5: Participant 5 was a 10-year-old Caucasian female given a principal diagnosis of SAD (CSR = 6) at both the 1-week baseline and pretreatment assessment points. Her SAD symptoms reportedly onset approximately 2 years prior to the interview. Her parents reported that separating for school in the morning was extremely distressing for the participant and her family. Moreover, when Participant 5 was with relatives for the day or evening, she would call her parents six or seven times to ensure that her mother was “okay.” Similarly, when her mother was late picking her up from an activity, she reportedly became exceptionally upset, worrying that something terrible had happened. Other distressing separation situations included being left with a babysitter and staying with her father in her mother’s absence. Participant 5 was also frequently unable to sleep at night without a parent lying next to her and was entirely avoidant of play-dates and sleepovers. According to her parents, she persistently complained of headaches and stomachaches prior to these separation situations.

Measures

Measure of Clinical Status: Anxiety Disorders Interview Schedule—Child and Parent Versions (ADIS-IV-C/P; Silverman & Albano, 1997):

The ADIS-IV-C/P was administered to referred youth during the baseline assessment. These interviews permit the diagnosis of the major *DSM-IV* anxiety disorders, as well as other disorders (e.g., mood and externalizing disorders of childhood). Because the ADIS-IV-C/P does not include an assessment of every *DSM-IV* disorder, clinical symptoms suspected through observation, self-report, or ancillary information are further assessed to allow for appropriate determination of additional diagnoses (e.g., Adjustment Disorder with Anxiety, Anxiety Disorder Not Otherwise Specified, Learning Disorders by History, Impulse Control Disorders, etc.). When the interview is conducted, the child is seen first, followed by the parent(s). Diagnoses from each interview are then combined to form a composite diagnosis using specific guidelines outlined by the authors (Albano & Silverman, 1996). Diagnoses assigned a clinical severity rating (CSR) of four or above on an 8-point scale (0 = *absent*; 8 = *very severely interfering/disabling*) are considered to be a clinical diagnoses, while those assigned a rating less than 4 are considered subclinical. The CSR is based on a clinician-rated consensus of the parent and child reports. Furthermore, the interrater reliability of the ADIS-IV-C/P at the site administering this study is assessed on an on-going basis through an established procedure, and results suggest high inter-rater reliability for both the presence of diagnoses ($\kappa = .866$) and clinical severity ($r = .615$). Research outside of our treatment site also demonstrates that the ADIS-IV-C/P has good interrater ($r = .98$ for the ADIS-C; $r = .93$ for the ADIS-P) and test-retest reliability ($k = .76$ for ADIS-C; $k = .67$ for ADIS-P; Silverman & Eisen, 1992; Silverman & Nelles, 1988). A kappa of .92 was found for overall principal diagnoses and .89 for SAD specifically using combined ADIS-IV-C/P information (Lyneham, Abbott, & Rapee, 2007). A brief version of the ADIS-IV-C/P (Mini ADIS-IV-C/P) was administered to children pretreatment, posttreatment, and follow-up assessment points. The Mini-ADIS-IV-C/P assessed all clinical and subclinical diagnoses assigned at the baseline assessment as well as any additional clinical issues voiced by family, as is common practice at our Center.

Measure of Separation Anxiety: Fear and Avoidance Hierarchy (FAH): Together, each parent and child created an individualized FAH at the baseline assessment. The FAH

operationally defines the “top 10” anxiety provoking situations for the child, and serves as a measure of treatment progress. Each anxiety-provoking situation or item listed by the parent and child is rated separately for level of fear and degree of avoidance of that activity on a 0 (*not at all*) to 8 (*extreme*) scale. The FAH provides an ecologically valid method of defining the behavioral limits of a child’s separation anxiety, and has been used extensively with childhood anxiety disorders, such as social phobias and specific fears (Albano & Barlow, 1996). A completed hierarchy lists 10 situations rated for fear and avoidance by the participant and her parent on a 0-to-8 SUDs scale. Separate parent and child ratings were not collected; instead, the parent and child rated each hierarchy item together. In the present study, the FAH will be re-rated at selected points in the program (pretreatment, posttreatment, and 2-month follow up). Thus, the FAH provides an ongoing measure of therapeutic change.

Measure of Internalizing Symptomology: Spence Children’s Anxiety Scale (SCAS; Spence, 1997): The SCAS and SCAS Parent Report are designed to assess anxiety by both child and parent report, and were completed at every assessment point. The scale measures a wide range of anxiety symptoms, has a specific factor/scale assessing separation anxiety symptoms, and provides information about other specific anxiety disorder symptoms. The SCAS child report consists of 45 items, 38 assessing anxiety and 7 assessing social desirability, while the parent report consists of 39 items. The subscales include separation anxiety, panic/agoraphobia, social anxiety, generalized anxiety, obsessions/compulsions, and fear of physical injury. The six-subscale structure of the SCAS has been established by confirmatory factor analysis (Spence, 1997, 1998). Total internal consistency of .92 has been found across studies while internal consistency of the separation subscale ranges from .62 to .74 (Muris, Merckelbach, Ollendick, King & Bogie, 2002; Muris, Schmidt, & Merckelbach, 2000; Spence, 1998; Spence, Barrett, & Turner, 2003). Three- and 6-month test-retest reliabilities of .60 and .63, respectively, were reported for the total score (Spence, 1998; Spence et al., 2003). In discussing the results of the child version of this self-report inventory, *T*-scores are presented. A *T*-score of 60 or above classifies 83% of children at risk for significant anxiety, whereas a *T*-score of 65 and 70 classifies 93% and 98% of children at risk, respectively. For the present study, a *T*-score of 70 or above was used when classifying children that show the most significant risk for anxiety using the SCAS. *T*-scores are provided for the child self-report but are not yet available for the parent report (S. Spence, personal communication, September 28, 2008). Thus, parent report scores were compared with the means and standard deviations found in the normative sample.

Procedure

Participant recruitment: Female child participants and their parent(s) were recruited through referrals to an urban, university-based research clinic specializing in the treatment of anxiety disorders.

Design: A case-series design was implemented with assessments occurring at baseline, pretreatment, immediately following treatment, and again 2 months later to measure immediate symptom reduction as well as generalization of effects over time. Participants were assigned to varying waitlist periods (from 1 to 6 weeks) based on their point of entry into the study, and in an attempt to measure symptom stability prior to treatment onset. Two-month follow-up assessments were conducted over the telephone to reduce participant, parent, and therapist burden (as no financial compensation was provided to anyone involved) and questionnaires were sent to the families with a self-addressed, stamped envelope. Every effort was made for an Independent Evaluator (IE), a doctoral student in clinical psychology, to conduct all posttreatment and follow-up assessments. However, due to scheduling difficulties with certain families, the lead author conducted one assessment at

both the posttreatment and 2-month follow-up, though with different participants. The results from these two interviews were then reviewed by an IE prior to finalizing diagnostic assignments, in an attempt to minimize any potential examiner bias. A Ph.D.-level psychologist in the program supervised those conducting all assessments.

Intervention: The summer treatment program for SAD utilized evidence-based, cognitive-behavioral principles for the treatment of anxiety in youth (Kazdin & Weisz, 1998; Velting et al., 2004), tailored specifically to meet the developmental needs and diagnostic features of the participants. Typical components of CBT for anxiety used in the current intervention protocol include psychoeducation, somatic anxiety management (e.g., identification of somatic symptoms, interoceptive exposure, progressive muscle relaxation), cognitive restructuring (e.g., identification of worried thought, evaluation of evidence, and generation of coping thought), problem-solving skills, exposure (in-session exposures and homework exposures chosen from FAH), and relapse prevention. A parent component, with elements selected from the Cognitive-Behavioral Family Therapy for Anxious Children Manual (Howard et al., 2000) and Family Anxiety Management (FAM; Barrett, Dadds, & Rapee, 1996), was incorporated into treatment. In addition to the parenting intervention materials used, portions of the parent protocol were created based on the clinical experiences of the authors and on relevant literature concerning parenting factors related to child anxiety (e.g., parental autonomy granting [Siqueland et al., 1996], parental warmth [Whaley et al., 1999], and parental intrusiveness [Wood, 2006]). During the treatment week, three 1-hour parent treatment groups were held in which information was presented about the management of SAD symptoms, such as parenting behaviors that contribute to the maintenance of the child's anxiety, differential reinforcement skills, strategies for tolerating both their child's and their own distress, and the effective structuring of in-vivo exposures in the home environment. These treatment components were selected both because of research support and ease of implementation, as these elements are typically used with parents in the treatment program at our site. Similar to the practice segment that occurred in the evaluation of cognitive-behavioral family therapy by Howard and Kendall (1996), the daily parental separation required by the summer treatment program enabled study therapists to work directly with problematic responses exhibited by parents. These parent groups took place in a separate room and participants were aware that their parents remained in the building.

Over the course of the intervention, parent involvement was gradually and systematically faded such that participants spent increasing amounts of time away from parents or engaged in activities of increasing difficulty as the week progressed. Importantly, reduction of parent involvement occurred at a pace and intensity promoting the child's habituation to the anxiety, measured using Subjective Units of Distress (SUDs), and successful completion of the exposure, as inappropriate or incomplete exposure can lead to demoralization, incomplete recovery, and treatment dropout (Velting et al., 2004). Drawing on principles of in-vivo exposure and differential reinforcement, a shaping procedure was implemented through the use of a "treasure-hunt" game. This game included a reinforcement component to facilitate separation by requiring each participant to separate from her parent prior to receiving a "treasure," or reward, at each location. "Treasures" sought during this "hunt" at various treatment locations throughout the week included an individual reward and a single element of a larger reward (a puzzle piece) that could be earned by the group as a whole over the treatment week. Child engagement in this game was also steadily reduced to allow for a more extensive exposure to separation as the week progressed. Though tangible rewards were not faded, their hypothesized value to the participants was gradually reduced over the week. For example, lip-gloss might be an early reward; a sticker might be used later in the week.

Total duration of treatment was limited to seven consecutive group sessions conducted over a 7-day period. The intervention relied on child engagement in activities of increasing difficulty due to graduated reduction of parental presence, as well as completion of nightly homework exposures tailored to each participant. See Table 1 for more detailed schedule of treatment components delivered and activities provided during the week.

Sessions 1 through 4: The first 4 days (Monday through Thursday) started at 10 a.m. and ended at 3 p.m. Each of these sessions began with a therapeutic child group (10 a.m. to approximately noon), during which separation-anxiety-related issues were explored (e.g., presentation of common symptoms of SAD, discussion of each participant's FAH), and cognitive-behavioral skills taught (e.g., detective thinking worksheet applied to participant's feared separation situations). At least one parent was asked to be present for the morning groups with their daughters on the first two treatment days, and participated in 1-hour parent-only groups on days one, two, and four, while their children concurrently participated in the child group or exposure activities. Lunch occurred from approximately noon to 1 p.m., and took place with parents on the first treatment day only. Following lunch, participants engaged in a developmentally appropriate exposure activity in the area (i.e., jewelry-making, pottery-painting, bowling) for the remainder of the afternoon, most of which the participants would have previously avoided without the presence of their parents. During these activities, participants' newly acquired skills were applied to manage their anxiety. For example, participants were led in cognitive restructuring or relaxation techniques when high anxiety was reported through SUD scores or evident through behavior. Following the afternoon activity and just prior to 3 p.m. pickup, each participant returned to the treatment center to graph habituation curves and to receive a small reward for completion of the exposure activity.

As introduced above, a shaping procedure ("treasure hunt") was implemented during Sessions 1 through 4 to encourage separation from parents. On the first day of treatment, one reward per child was hidden in the location of the therapeutic community activity, and participants were informed that they could begin searching for their "treasure" as soon as separation from their parent occurred. Separation took place quickly for some, which appeared to encourage the separation of others evidencing more reluctance initially. On the second day, treasures were hidden in the first-floor lobby of the treatment facility, such that the participants were required to separate from their parents on the sixth floor of the building and go to the lobby by themselves to obtain the reward, prior to traveling to the planned activity. On the third day, separation took place immediately after homework was reviewed as a group. Participants were encouraged to separate from their parent(s) in the lobby and told to return to the group room for their reward, which was not hidden. On the fourth and final day that this shaping procedure was utilized, the participants were not reminded about the "treasure" but each was given a reward after immediate separation, without having to engage in the actual treasure hunt. Thus, unable to consistently use the game as a distraction, it was hoped that each participant would be more fully exposed to the feelings of anxiety produced.

Session 5: Held on a Friday evening from 6 to 9 p.m., the fifth session consisted of an evening activity without parents in order for the participants to become acclimated to being away from home and in an urban environment at night. Designed to resemble a naturalistic social activity with peers, no formal didactic lesson took place during Session 5. To reinforce treatment components, however, participants were asked to generate a list of previously acquired skills from which to draw in moments of anxiety. This list was displayed in the group room for members to reference during the remainder of the program.

Session 6: The therapeutic sleepover began at 6 p.m. Saturday night and continued until Sunday morning. Group members were encouraged to partake in “typical” sleepover activities (e.g., games, art projects, movies) and to apply therapeutic skills when necessary. The group members were led by a therapist in a progressive muscle relaxation exercise prior to bed.

Session 7: Parents joined their children for the final session, conducted from 8 a.m. to 9 a.m. Sunday morning after the sleepover. Relapse prevention and exposure planning for the future were discussed, followed by an awards ceremony for all participants.

The group intervention was individualized for each participant wherever possible. For example, each skill (e.g., cognitive restructuring, interoceptive exposure, relaxation) was made relevant by eliciting pertinent examples from each participant’s life, both verbally and through written worksheets. Exposure tasks were also tailored through the assignment of nightly homework exposures from the participant’s FAH and additional exposure games incorporated into the treatment day. For example, in “Bravery Bingo,” participants were given a worksheet listing personalized exposures, other than the afternoon exposure activity for the group, that each could choose to engage in during the day to earn further rewards. This worksheet might include items such as eating an entire sandwich at lunch for a participant who, due to somatic symptoms, typically would not eat away from a caregiver, or saying hello to an unknown child for a participant with comorbid social anxiety. Each completed exposure on this worksheet earned the participant one sticker. “Bingo” was achieved after engaging in a specified number of these collateral exposures, for which the participant was given a small prize.

In part due to the pilot nature of this trial, the use of resources and personnel was more extensive than we have since learned necessary (see Discussion section for suggestions regarding implementation in less-resourced settings). The summer treatment program was administered by the lead author and two additional graduate student therapists, both present for the entirety of each treatment day, as well as a supervising Ph.D.-level psychologist. The therapists were doctoral students specializing in the cognitive-behavioral treatment of childhood anxiety disorders at a university-based research clinic. The doctoral student therapists were trained by the lead author over two 1-hour training sessions and supervised by a faculty member who was also present for several of the treatment days, the evening session, and the sleepover. This supervising psychologist was also available each day of the treatment week to supervise the lead author on any clinical issues that might have arisen, though supervision was not required on a daily basis. The therapists and supervising psychologist volunteered their time to the present study, as this was an unfunded pilot investigation. While treatment was provided free of charge, each family was responsible for program-related expenses, such as entrance/activity fees (e.g., pottery and jewelry supplies and studio time, cost of bowling lane and shoes, Duck Tour ticket) and food, totaling approximately \$125.00 per family. Resources provided at no cost to the investigators by the institution supporting this project included a large group room and supplies such as a white board and dry erase markers, folders and pencil for each participant, worksheets, small rewards, and art supplies (stickers, markers, glue, construction paper, poster board, boxes).

Results

Diagnostic Status

Table 2 displays the diagnostic status of each participant at pre- and posttreatment, and 2-month follow-up. Treatment gains were evidenced through changes in diagnostic status across all participants. Specifically, the reductions in the severity of the SAD diagnoses were clinically meaningful for each participant at post-treatment. Immediately following

treatment, three participants no longer met diagnostic criteria for the disorder and, by two month follow-up, none of the participants met criteria for a clinical diagnosis of SAD, suggesting an even greater generalization of treatment effects over time. Reductions in severity of other comorbid anxiety diagnoses not specifically targeted by the intervention were also observed and, by 2-month follow-up, only one participant met criteria for any clinical-level diagnosis.

Fear and Avoidance of Separation Situations

Concomitant reductions in FAH fear and avoidance scores, from both pre- to posttreatment and 2-month follow-up, were observed. Specifically, fear scores declined from pre- to posttreatment for all participants, and smaller but continued reductions were reported at the 2-month follow-up assessment. The avoidance scores evidenced a similar pattern of improvement, with the exception of Participant 1, described below. These results are outlined in Table 3. Due to space considerations, only the highest and lowest rated items at the pretreatment assessment were included in this table to illustrate a representative sample of items, ratings spread, and change in ratings over time. Moreover, each participant's fear and avoidance scores were separately averaged to determine both a mean fear and mean avoidance score at each time point. These means were then used to calculate the change scores also reported in this table.

Self- and Parent-Report of Anxiety Symptomology

Both parent and child report of separation anxiety symptoms evidenced substantial improvement following treatment, as measured by parent and child versions of the SCAS. According to parents, above-average pretreatment scores on the separation anxiety subscale of this measure reduced by at least a one standard deviation and fell into the average range for three of the four participants that remained in the analyses of results. Children reported a similar pattern of decline in separation anxiety, with above-average pretreatment scores for three out of the four participants falling into the normative range. Of note, the participant whose self-report SCAS score did not improve following the intervention was the same participant whose parent also did not indicate immediate reduction. The mean and standard deviation [child: 5.40 (3.53); parent: 7.8 (4.0)] as well as the *T*-scores of the SAD subscale reported below are based on the normative sample (Spence, 2005). As noted previously, *T*-scores are available only for the child self-report measure (S. Spence, personal communication, September 28, 2008). Thus, parent self-report scores were compared to the means observed in the normative sample.

Description of Treatment Course and Outcomes by Participant

Participant 1—Immediately following treatment, Participant 1 no longer met criteria for a clinical diagnosis of SAD based on the ADIS-C/P (parent, child, and composite CSR = 3 at posttreatment). Additionally, she was able to engage in each of the eight separation situations listed on her FAH, despite the fact that Participant 1's avoidance scores did not evidence the same pattern of reduction as the other three participants. Specifically, her parent-reported avoidance scores increased from pretreatment (mean = 1.88) to posttreatment (mean = 3.88). However, Participant 1's avoidance at follow-up (mean = 2.63) suggests slight improvement in her avoidance of situations evoking separation anxiety over time, though this level still remained higher than her pretreatment avoidance. She and her mother did report reductions in her separation-related fear on the FAH. For example, by 2-month follow-up she was no longer experiencing clinical levels of fear when staying with relatives while her parents vacationed, attending sleepovers, staying home alone for brief periods of time, or when riding in a boat without her parents. While Participant 1's SAD remitted to subclinical levels following treatment, she continued to meet criteria for a

Specific Phobia related to vomiting (CSR = 5), a diagnosis not targeted specifically by the intervention. Both parent- and child-report SCAS scores also suggest improvement in separation anxiety symptoms. Above-average pretreatment scores on the separation anxiety subscale of the SCAS (both parent and child = 13, *T*-score 69, 97th percentile) declined following treatment and, by follow-up, both scores fell within the normative range (parent = 5; child = 8, *T*-score 58, 79th percentile).

Participant 3—Based on the parent, child, and composite CSR of the ADIS-C/P, Participant 3's separation anxiety symptoms, among the most severe at pretreatment (CSR = 6), were no longer deemed clinically interfering immediately following the intervention (posttreatment composite CSR = 2, child CSR = 3, and parent CSR = 1). Furthermore, and similar to the others completing the treatment, Participant 3 evidenced clinically significant reductions in her fear and avoidance of separation situations, as measured by the FAH. Two months following treatment, Participant 3 and her mother both noted that she was able to engage in each of the seven separation situations listed on her FAH, such as sleepovers, play-dates, sleeping on her own, and separating from her mother before work in the morning. Participant 3 was also assigned four additional clinical diagnosis at the pretreatment assessment (Specific Phobia, Vomit: CSR = 6; GAD: CSR = 5; Specific Phobia, Blood Injection Injury: CSR = 4; Provisional Agoraphobia: CSR = 4), but met criteria for only one posttreatment (Specific Phobia, Vomit: CSR = 4), which also reduced to subclinical levels 2 months later. The comprehensiveness of her improvement is remarkable considering the intervention targeted her separation fears alone; yet, it is possible that her positive experience with the application of cognitive-behavioral skills to her separation anxiety encouraged the generalization of these skills to other diagnoses. These substantial improvements were also evident in both parent and child report of anxiety symptoms, as measured by the separation anxiety subscale of the SCAS. Above-average SCAS subscale scores obtained at pretreatment (parent = 14; child = 13, *T*-score = 69, 97th percentile) fell within the normative range following the intervention (parent = 8; child = 6, *T*-score = 53, 61st percentile). However, self and parent report of comorbid disorders, as measured by the Panic Attack and Agoraphobia and Generalized Anxiety Disorder/Overanxious Disorder subscales of the SCAS, did not reflect the decrease in severity found in the clinical interview, as these scores remained in the above-average range.

Participant 4—The severity of Participant 4's separation anxiety evidenced a one-point CSR reduction but remained at a clinical level immediately following treatment as measured by the ADIS-C/P (parent, child, and composite CSR = 4 at posttreatment). However, treatment effects appeared to generalize over time and, by the 2-month follow-up, she no longer met criteria for the disorder. According to her parents, Participant 4 was able to engage in five of the six separation situations listed on her FAH following the intervention. Two months after the program, she was able to sleep in her own room without a parent present and could return to sleep on her own after waking in the night. Furthermore, she exhibited less distress when staying home with a babysitter and could separate for camp or school in the morning without incident. These reductions were also evident in parent and child self-reported anxiety, as measured by the SAD subscale of the SCAS. Above-average pretreatment scores on the SCAS subscale (parent = 14; child = 13, *T*-score = 69, 97th percentile) evidenced improvement following the program, with greater progress reported by the child. Scores on the parent report remained elevated but within one standard deviation of the mean (parent = 11), while child report scores fell within the normative range (child = 7, *T*-score = 55, 70th percentile).

Participant 5—Similar to Participant 4, Participant 5 demonstrated notable reductions in her separation anxiety symptoms, which dropped two CSR points, though she continued to

meet criteria for the disorder immediately following treatment (parent, child, and composite CSR = 4). Two months later, however, her symptoms were no longer present at a clinically interfering level (parent, child, and composite CSR = 3). Participant 5 also evidenced significant reductions in her fear and avoidance of separation-related situations immediately posttreatment, as measured by the FAH, with even greater gains demonstrated over time. For example, 2 months after the program, she was able to engage in each of the eight situations on her baseline FAH with substantially less fear than originally reported. Improvement in her anxiety surrounding separation was evident in her ability to stay at home with a babysitter, leave for school in the morning without incident, fall asleep without a parent lying next to her, and attend play-dates and sleepovers. Self-reported separation anxiety evidenced a pattern of reduction similar to diagnostic status and FAH scores. Separation anxiety, as measured by the SCAS subscale, was in the above-average range and remained unchanged by both parent and child report from pre- to posttreatment (parent and child = 12, *T*-score = 67, 96th percentile). However, follow-up scores demonstrated further reductions over time (parent = 9, child = 10, *T*-score 63, 91st percentile) though still remained in the elevated range

Treatment Satisfaction

High levels of child and parent treatment satisfaction at posttreatment were reported, as ascertained from a form requesting written feedback and 0-to-5 Likert-scale ratings of overall treatment satisfaction. This form was created for the present investigation and provided to each participant and their parents. The majority of parents rated themselves as “very satisfied” with their daughter’s progress as well as the intensive, week-long format of the program. One parent stated that the program was “far more productive” than a weekly treatment approach for them. Additionally, parents felt that the skills taught in treatment would be applicable to their child’s life, and reported that their child “immensely enjoyed” the “worthwhile” program. Parents also noted changes in their children’s sense of self-efficacy. One parent stated that the program gave her daughter “the encouragement and confidence to tackle her anxiety” while another reported that her daughter “gained strength as the activities required more of her.” Yet another parent stated that the program enabled her daughter to realize that she is “capable of handling anxiety-provoking situations on her own.” Suggestions included increased parental involvement in the treatment itself, possibly using additional parent groups and/or holding a parent session several months after treatment ends to discuss continued application of skills to new situations that may have arisen.

Discussion

Results from this initial investigation suggest that school-aged, female children with SAD responded positively to a 7-day, exposure-based, intensive group treatment program. From pretreatment to posttreatment and 2-month follow-up points, children showed improvement in SAD severity and related anxiety symptomology, as well as high levels of treatment satisfaction. As might be anticipated with a relatively brief intervention, treatment gains, although notable immediately following the intervention, appeared to strengthen over time. Continued reductions in the severity of separation anxiety and other, comorbid anxiety diagnoses were reported on the ADIS-IV-C/P 2 months following treatment. Similarly, while some residual fear and avoidance remained at posttreatment, it is likely that insufficient time may have been available for complete generalization of treatment skills in the initial program week, as further reductions in fear and avoidance ratings were evident at the 2-month follow-up.

The positive therapeutic response obtained may suggest one avenue or method for handling some of the difficulties faced in the dissemination of standard, weekly treatments for child

anxiety and psychopathology, more broadly. In particular, this type of intensive group setting may provide a unique draw for families, an ability to better engage youth in treatment and, as called for by Herschell, McNeil, and McNeil (2004), the delivery of therapy in an alternative context that may uniquely impact children. Furthermore, the high levels of treatment satisfaction reported by participants support the possibility that this intervention might provide a community-friendly option for anxious youth.

Although this intervention appeared feasible in our research clinic environment, it required extensive resources for its implementation. Implementation outside of a research clinic would be informed by iterative and recursive testing of this intervention in community settings, consistent with the deployment focused model of intervention development (Weisz et al., 2005). However, at this stage, some preliminary suggestions for application outside of a research context can be forwarded based on our clinical experience with the intervention. We believe that the program can be administered with two clinicians, enabling one clinician to conduct the breakout parent group while the other leads the child group. The group treatment and the sleepover are both conducted in a large room at our Center. Thus, the summer treatment program would be best conducted in facilities already able to accommodate group treatment, such as schools, certain practice settings, or community centers. However, the sleepover itself could take place in a larger waiting area, rather than a treatment room, if necessary. As is currently the procedure at our research clinic, clinicians schedule intensive treatments in advance to ensure morning to mid-afternoon availability for the treatment program. The therapists in the current study were then free to see additional clients during the late afternoon and evening.

Billing for treatment provided in this format may be one of the greatest obstacles we perceive to providing this innovative treatment in the community. Anecdotally speaking, insurance companies may not reimburse fully for intensive treatments. At our Center, patients receiving intensive treatment for Panic Disorder or Specific Phobias outside of a research context pay out of pocket and, in some cases, receive partial reimbursement from the insurance company using billing codes similar to those used by partial day-treatment facilities. It is our hope that, through continued efficacy and effectiveness research, the therapeutic benefit and cost-effectiveness of intensive treatments when compared to longer-term therapy will be established and recognized by insurance companies and, thus, made more easily available to those unable to pay the substantial out of pocket expense.

Somewhat unexpected results of the intervention were the collateral changes evidenced across participants, and specifically the significant reduction in other, comorbid psychiatric conditions not specifically targeted by the program on the ADIS-IV-C/P. This reduction in comorbid symptoms was not reflected in the self-report measures. However, given that the ADIS-IV-C/P aggregates the responses of both the parent(s) and child, as well as clinician impressions, it is possible that this diagnostic interview may have captured a more comprehensive picture of current functioning than self-report measures alone. Alternatively, it is also possible that social desirability influenced these discrepant findings, such that participants and their parents were more comfortable reporting their poor progress on a self-report measure than they were during the in-person diagnostic interview.

It is also possible that collecting parent and child FAH ratings together may have influenced the ratings reported. Research suggests that such parent-child discussions can exacerbate anxious and avoidant behaviors in youth (Dadds, Barrett, Rapee, & Ryan, 1996). In the Dadds et al. study, parents of anxious children were found to model caution and reinforce avoidant behavior during discussions of ambiguous situations, a finding referred to as the FEAR effect (Family Enhancement of Avoidant and Aggressive Responses). It is possible that the FEAR effect also influenced FAH reports in this study given the method employed

for collection of this measure. In addition, collecting SUD scores in a group format could potentially impact the ratings given. For example, social desirability may have led the participants to underreport their SUDs or to report them in a range consistent with other group members.

A number of potential mediating and moderating factors may underlie the treatment response evidenced. For instance, it is possible that group cohesiveness, facilitated by the single-gender and common symptom experience of its members, may have enhanced treatment engagement. Though this observation is purely anecdotal, it is founded on research suggesting that the effectiveness of group treatment is related to a sense of bonding, identification, and effort toward common goals (Marziali et al., 1997). Similarly, the program's emphasis on creating an engaging group atmosphere may have encouraged parental separation due to the enjoyable nature of the exposure tasks. It is also possible that positive experience with repeated exposure to feared situations enhanced self-efficacy while encouraging additional approach behaviors. By the week's end, this potential momentum was evident when each participant was able to successfully complete the most challenging separation task: a sleepover.

While parents reported the highest level of treatment satisfaction, they also consistently noted the desire for a more extensive parent-training component in the intervention. Specifically, parents requested individual sessions with the therapist to discuss more thoroughly the feared situations specific to their child; one mother felt this would increase her own confidence in implementing the skills taught to her child in treatment. It was also suggested that ongoing parent groups be held following the program in order to reinforce treatment strategies in the long-term. These requests however, must be balanced with the fact that many parents may not be in a position to devote extensive amounts of time to their child's treatment. Nonetheless, this issue would benefit from empirical exploration to determine the most therapeutic yet realistic dose of adjunctive parent training.

Given the preliminary nature of the present evaluation, these results should be considered with caution and limitations acknowledged. First, the small sample size and case series format limit the ability to extrapolate findings to separation-anxious youth more generally, particularly given that the participants were primarily Caucasian, extremely motivated, and generally of higher socioeconomic status. It may also be assumed that these highly motivated, higher-income parents had greater means with which get their children to treatment and also to take off work, when necessary, to attend the parent sessions. In future iterations of this program, accommodations will be made for parents unable to miss work during these times. For example, each parent session will be digitally video-recorded, which can then be watched by the parent upon child pick-up or transcribed to DVD for the parent to watch at home. Similarly, the intensive nature of the program required a time commitment by both therapists and families that may be unrealistic for many in the community. It is hoped that this potential limitation can be overcome by incorporating this treatment at a programmatic level into existing contexts serving children, such as summer camps, schools, and community organizations.

Second, the development of this protocol to specifically target single-diagnosis, single-gender groups further limits the generalizability of the findings. One potential solution to this concern is for future research to consider the inclusion of additional anxiety diagnoses to expand the clinical utility of this protocol. Third, we developed a new CBT protocol for anxious youth when efficacious models of treatment existed. Yet, given the brief, intensive nature of the summer treatment program, a new protocol was considered necessary, albeit one that utilized the main components of effective treatments (Kendall, 1990, etc.) and other intensive interventions (Öst, Svensson, Hellstrom, & Lindwall, 2001; Pincus, et al., 2004;

Storch, et al., 2007). This choice is consistent with the field's movement toward the flexible application of effective elements of treatment rather than the faithful administration of entire treatment manuals (Chorpita, Daleiden, & Weisz, 2005).

Finally, given the need to bridge the gap between findings generated in research clinics and the service settings in which children most frequently receive care, the authors intend to further adapt and eventually test the summer treatment program in practice and community settings. Following the deployment-focused model of intervention development and testing, the authors have since progressed to the second step of this iterative process: initial efficacy testing under controlled conditions. A waitlist-controlled trial of the summer treatment program is currently underway at the authors' treatment site. If results of this RCT are sufficiently promising, the authors plan to move to Step 3 of the model, where single-case pilot tests of the protocol are conducted with clinic-referred youth in clinical settings, as well as to subsequent stages of effectiveness, disseminability, and sustainability testing.

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Table 1

The Summer Treatment Program Schedule of Events

Day	Group Content	Separation	Exposure Activities
Monday 10am to 3pm	Children and Parent(s): psychoeducation; interaction between thoughts, feelings, behaviors; exposure rationale ("riding the wave" of anxiety; Subjective Units of Distress), rewards, begin cognitive restructuring (identify anxious thought; generate coping thought). Break-out Parent Group (11:30 to 12:30): differential reinforcement skills (active ignoring, creating reward system) tolerating distress in child and self, structuring of in-vivo exposures.	Parents walk participants to store; separation occurs after 15-minutes of choosing beads (approx. 1:15pm)	Jewelry making (1-3 pm)
Tuesday 10am to 3pm	Child and Parent(s): continue cognitive restructuring (identify thinking trap, evaluate evidence for worried thought) Break-out Parent Group (11am – noon): problem solving surrounding implementation of exposure or reward system, autonomy granting	At clinic, prior to departure for activity (approx. noon)	Pottery painting; Eat lunch and use public transportation without parent(s)
Wednesday 10am to 3pm	Child group: interoceptive exposure, including identification of somatic symptoms and repeated practice eliciting and habituating to relevant symptoms. No Parent Group	At clinic, following homework review (approx. 10:15am)	Bowling (noon to 3pm); Lunch at bowling alley
Thursday 10am to 3pm	Child group (10am to noon): Progressive Muscle Relaxation, including measuring SUD's before and after practice and when to use PMR. Parent-Group (2-3pm, while participants off-site at exposure activity): review of CBT skills taught to children, problem solving surrounding evening activity and sleepover, planning exposure after treatment ends	Immediately	Tour of city; Lunch on way to activity; "Bravery Bingo"
Friday 6pm to 9pm	n/a	Immediately	Movie night
Saturday 6pm - morning	n/a	Immediately	Sleepover
Sunday 8am to 9am	Children and Parent(s): awards ceremony, goal setting for upcoming weeks, relapse prevention (e.g. lapse vs. relapse)	n/a	n/a

Demographic Information, diagnostic status, and clinical severity at baseline, pre-treatment, post-treatment, and 2-month follow-up

Table 2

Demographic Info			Diagnostic Status (Composite CSR; 0-8 scale)			
Part.	Age	Ethnicity	Baseline	Pre	Post	2-mo. f/u
1	10	Caucasian	SAD (5)	SAD (5)	SAD (3)	SAD (2)
			SpPhob (4)	SpPhob (4)	SpPhob (5)	SpPhob (4)
3	11	Caucasian	SAD (6)	SAD (6)	SAD (2)	SAD (1)
			SpPhob (6)	SpPhob (6)	SpPhob (4)	SpecPhob (2)
			GAD (4)	GAD (5)	GAD (1)	GAD (3)
			SpecPhob (4)	SpPhob (4)	SpecPhob (2)	SpecPhob (2)
4	8	Hispanic	ProvAg (4)	ProvAg (4)	ProvAg (0)	ProvAg (0)
			SAD (5)	SAD (5)	SAD (4)	SAD (3)
5	10	Caucasian	SAD (6)	SAD (6)	SAD (4)	SAD (3)

Note. BL = Baseline; CSR = Clinical Severity Rating; SAD = Separation Anxiety Disorder; SpPhob = Specific Phobia; GAD = Generalized Anxiety Disorder; SoP = Social Phobia; ProvAg = Provisional Agoraphobia.

Table 3

Fear (F) and avoidance (A) ratings at pre-treatment, post-treatment, and 2-month follow-up (0–8 scale)

Part.	Highest rated item on FAH at pre-tx over time: (F/A)				Lowest item on FAH at pre-tx over time: (F/A)				Fear and Avoidance Change Scores **	
	Item	Pre	Post	f/u	Item	Pre	Post	f/u	Pre - Post	Post - f/u
1	Staying with grandparents for week	8/8	7/8	2/1	Staying home alone while mother leaves for short time	2/0	3/1	1/1	F: 0.6, A: -2 *	F: 1.1, A: 1.25
3	Sleepover outside home	8/8	3/0	3/1	Play-date outside home	7/5	3/1	1/1	F: 4.3, A: 4.9	F: 0.7, A: 0.4
4	Separating at bedtime without delaying	8/8	7/7	4.5/4.5	Separating before school	4/0	3/1	0/0	F: 2.2, A: 0.9	F: 0.5, A: 0.1
5	Sleepover outside home	8/8	8/8	4/0	Staying home with sitter	4/0	0/0	0/0	F: 2.6, A: 1.4	F: 1.7, A: 0

* Increase in mean avoidance for Participant 1 from pre to post treatment

** All FAH items included in calculation of change scores, not just highest and lowest rated item listed in table.