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What is This?
The Treatment of Separation Anxiety Disorder Employing Attachment Theory and Cognitive Behavior Therapy Techniques

CARL F. WEEMS
University of New Orleans

VICTOR G. CARRION
Stanford University School of Medicine

Abstract: This study explored a potentially important intersection between behavior therapy and attachment theory in the treatment of separation anxiety disorder (SAD). Specifically, in this article, the authors describe an intervention that incorporated attachment theory in the framework of an exposure-based cognitive-behavioral treatment (CBT) for severe separation anxiety experienced by a 9-year-old boy. Assessment measures indicated that treatment gains were evident at the end of 12 sessions and that the child showed continued improvement at a 6-month follow-up session. Overall, it seemed that an attachment perspective was helpful in framing an understanding of SAD for the parent and fostering compliance with the CBT regimen. Utilization of the theory also helped the parent and therapist in determining reinforcers for the child’s behavior. More detailed and controlled investigations of the effect and relative effect of the attachment focus during CBT for SAD are warranted.

Keywords: separation anxiety disorder; cognitive-behavioral treatment; attachment theory

1 THEORETICAL AND RESEARCH BASIS

Separation anxiety disorder (SAD) is characterized by developmentally inappropriate and excessive anxiety concerning separation from the home or those to whom the child is attached (American Psychiatric Association, 1994). SAD is one of the most prevalent anxiety disorders in childhood, with prevalence rates ranging from 1.8% to 12.9% in community samples and 15% to 35% in samples of children with anxiety disorders (see Silverman & Ginsburg, 1998). In clinical samples, SAD tends to be more common in younger children than adolescents (Weems, Hammond-Laurence, Silverman, & Ginsburg, 1998); however, evidence suggests that the problem may persist into adult-
The prevalence of SAD and the effect it can have on an individual’s school progress, family, and social functioning highlights the need for effective interventions for this problem. This case study explores a somewhat neglected but important intersection between behavior therapy and attachment theory in the treatment of SAD. Specifically, the purpose of this case study is to examine an area where attachment theory may lead to useful strategies for carrying out cognitive behavioral interventions for SAD.

A growing body of research suggests that cognitive-behavioral therapy (CBT) techniques are efficacious for treating anxiety disorders, such as SAD, in youth (see Barrett, Dadds, & Rapee, 1996; Kendall, 1994; Kendall et al., 1997; Silverman, Kurtines, Ginsburg, Weems, Lumpkin, et al., 1999; Silverman, Kurtines, Ginsburg, Weems, Rabian, et al., 1999). A key variable in CBT is graduated exposures to the feared stimulus or situation to extinguish anxiety and fear responses and foster development of coping skills. Contingency management is often used to facilitate graduated exposure. Specifically, a fear hierarchy is devised and refined, and then in-session and out-of-session exposures along the fear hierarchy are facilitated by use of reinforcers. Behavioral contracts can be written between the parent and child that detail the child’s exposure task. For example, a child with SAD might have progressively longer separations from the parent or separations in different contexts (e.g., the school, home, baby-sitter’s or friend’s house) on their hierarchy. The contract states the reward that the parent will give to the child as a consequence for successful completion of the exposure task. For example, the child might receive verbal praise, a small sum of money, a toy (or earn tokens for some tangible reinforcer), or get to do some fun activity (see Ollendick, Hagopian, & Huntzinger, 1991; Silverman, Kurtines, Ginsburg, Weems, Lumpkin, et al., 1999; Silverman, Kurtines, Ginsburg, Weems, Rabian, et al., 1999).

Attachment theory suggests that human infants form an enduring emotional bond with their caretakers (Bowlby, 1977; Cassidy, 1999). When the child’s caretakers are responsive to their needs, this emotional bond can provide a lasting sense of security that continues even when the caretaker is not present. However, an inconsistently responsive caretaker, a neglectful caretaker, or some other disruption in the attachment bond can cause the child to become insecurely attached. These early attachment relationships are hypothesized to set a template for future relationships throughout the infant’s development into childhood, adolescence, and adulthood (Hazan & Shaver, 1987). Children with insecure attachment have particular difficulty during separations from their parents. For example, children in the strange situation research paradigm, characterized with “ambivalent” attachment bonds, display intense protests on separation and are hard to comfort or console on the parent’s return (Ainsworth, Blehar, Waters, & Wall, 1978).

The reaction of children with SAD to separation from parents is strikingly similar to that reported of both the disorganized and ambivalent insecurely attached children in the strange situation (Ainsworth et al., 1978; Lyons-Ruth & Jacobvitz, 1999; Main & Sol-
For example, children with SAD protest desperately when separation is eminent, cry and become agitated during separation, and then may act angrily or aggressively toward the parent on return (Ollendick, Lease, & Cooper, 1993). From the attachment perspective, responsiveness and attunement to the child’s needs, parental availability, and fostering a sense of felt security are hypothesized to increase the security of the attachment relationship (Kobak, 1999) and thus reduce separation distress.

Although behavioral and attachment theories have been viewed as opposing conceptualizations of behavioral problems, such as separation protest (see, e.g., Gewirtz & Pelaez-Nogueras, 1991), attachment theory may help to carry out behavioral interventions for SAD. Specifically, attachment theory can suggest what to reinforce with and how to reinforce children with SAD. In the context of an exposure-based intervention for SAD, attachment theory implies that reinforcing separations with increased positive and responsive interactions with the parent may be highly useful. From a habituation and or extinction perspective, this idea may seem problematic. For instance, if one conceptualizes intervention for SAD in terms of habituation of arousal during separation or as the reinforcement of appropriate separation behavior, one might argue that reinforcing separations with increased interaction might counteract the intervention. That is, it might increase separation anxiety by interfering with the process of extinction or actually reinforce separation protests by allowing increased proximity to the parent. This seems to be a valid caveat; however, a solution can be found in careful utilization of a behavioral contract. The contract must clearly detail that the child can receive increased interaction with the parent via activities, such as trips to the park, extra story time, and so forth, as a consequence of successful separations in areas crucial for the family’s functioning (e.g., going to school, parents’ going to work).

On the other hand, an attachment theorist might argue that reinforcement of behavior is not enough. That the parent needs to be taught ways of facilitating felt security and perceptions of availability through responsiveness and attunement to the child’s needs. An answer to this potential concern can again be found in the contract between the parent and child. The contract utilizing interaction activities as reinforcers, if followed through by the parent, can help teach the child that the parent will follow through and also that his or her behavior affects the parent’s behavior (i.e., the parent is responsive). In addition, using parent-child interaction as the reinforcer should foster positive development of the child’s perceptions of parental availability.

2 CASE STUDY

The following reports a case study that incorporated attachment theory, through the use of increased parent-child interaction/activities as a reinforcer, in the framework of exposure-based CBT for SAD.
3 PRESENTING COMPLAINTS

The client was a 9-year-old boy referred by his parents for severe distress on separation from them. In particular, separation distress was interfering at nighttime with sleep and going to bed, going to the bathroom (and other parts of the home) alone, and playing outside without his parents. At school, separation distress was interfering with school functioning because of difficulty at drop-off time, poor peer interactions, and weekly trips to the school nurse.

4 HISTORY

Parents reported that their son had been “fearful” as long as they could remember but that the problem had been intensifying over time. The client had never been hospitalized or on any medication for any psychiatric reason. The only previous treatment involvement had been consultation with the referring psychologist before our assessment and treatment intervention. The client was from an intact two-family home and had two younger siblings (one aged 5 years and the other 21 months). The father reported a history of problems with attention deficit. No other family history of psychiatric problems was reported.

5 ASSESSMENT

A diagnostic interview with the parents and child was conducted. The Anxiety Disorders Interview Schedule for Children (DSM-IV): parent version (ADIS-P) (Silverman & Albano, 1996) and Child Behavior Checklist (CBCL) were given at pretreatment and posttreatment and at a 6-month follow-up appointment. The ADIS-P is a structured diagnostic interview that emphasizes the anxiety disorders. The interview also permits the clinician to assess and diagnose other major childhood disorders, including the externalizing and affective disorders, according to DSM criteria. The ADIS has an interference rating scale for each disorder that ranges from 0 (“none” no interference) to 8 (“very very much” interference) and also facilitates the quantification of the number of symptoms reported for each disorder. The ADIS interview is a well-researched, commonly used instrument with good psychometric properties that has been used in a number of randomized clinical trials of treatment for childhood anxiety disorders (Barrett et al., 1996; Kendall, 1994; Kendall et al., 1997; Silverman, Kurtines, Ginsburg, Weems, Lumpkin, et al., 1999; Silverman, Kurtines, Ginsburg, Weems, Rabian, et al., 1999). The client met criteria for SAD and also generalized anxiety disorder (GAD) according to the ADIS interview. A summary of the pretreatment number of SAD symptoms and
GAD worries and severity ratings are presented in Table 1. SAD symptoms were pervasive (i.e., six out of eight possible symptoms) and severe (i.e., interference rating was eight out of eight).

The CBCL is a 113-item parent-completed rating scale that assesses children’s behavioral and social problems. Each item is scored on a 0 to 2 scale. The CBCL provides scores for the total scale, as well as internalizing and externalizing subscales. In addition, the CBCL provides scores for several narrow-band behavior problem areas. The CBCL has good reliability and has been extensively validated. CBCL items, scaled scores, and clinical cut-points have been found to discriminate between clinic-referred and nonreferred children, and normative data are available (Achenbach, 1991). Pretreatment CBCL scores are presented in Table 1. The client was in the clinical range on both the broadband internalizing subscale as well as the narrowband anxious/depressed subscale.

Behavioral observations in the therapy context were also recorded. For example, during the interview, the child could not be left alone in the assessment room nor could he be persuaded to meet alone with the assessor without his parents. The child did finally at the end of the session agree to talk to the assessor with his parents just outside the door of the room with the door open.

### TABLE 1
Summary of Assessment Measures at Pretreatment, Posttreatment, and 6-Month Follow-Up

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pretreatment</th>
<th>Posttreatment</th>
<th>Follow-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety Disorders Interview</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAD number of symptoms present</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SAD severity/interference rating</td>
<td>8a</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>GAD number of worries reported</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>GAD severity/interference rating</td>
<td>6a</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Child behavior checklist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broadband T-scores</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internalizing problems</td>
<td>73a</td>
<td>72a</td>
<td>70a</td>
</tr>
<tr>
<td>Externalizing problems</td>
<td>60</td>
<td>54</td>
<td>52</td>
</tr>
<tr>
<td>Total problem behaviors</td>
<td>69</td>
<td>66</td>
<td>57</td>
</tr>
<tr>
<td>Syndrome scales normative T-scores</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawn</td>
<td>64</td>
<td>64</td>
<td>58</td>
</tr>
<tr>
<td>Somatic complaints</td>
<td>56</td>
<td>61</td>
<td>67</td>
</tr>
<tr>
<td>Anxious/depressed</td>
<td>79a</td>
<td>74a</td>
<td>68</td>
</tr>
<tr>
<td>Social problems</td>
<td>64</td>
<td>60</td>
<td>52</td>
</tr>
<tr>
<td>Thought problems</td>
<td>64</td>
<td>64</td>
<td>50</td>
</tr>
<tr>
<td>Attention problems</td>
<td>65</td>
<td>54</td>
<td>51</td>
</tr>
<tr>
<td>Delinquent behavior</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Aggressive behavior</td>
<td>63</td>
<td>56</td>
<td>55</td>
</tr>
</tbody>
</table>

**NOTE:** SAD = separation anxiety disorder. GAD = generalized anxiety disorder.

a. Indicates scores in clinical range.
CASE CONCEPTUALIZATION

From the client's behavioral history, it appeared that problems with anxiety and separation had begun to cause the client significant distress and affect family functioning after the birth of the family's third child. Specifically, the mother's time had to be reallocated to spend more time caring for the infant and less time with the client. More recently, the father had an increase in his work-related responsibilities and was also spending less time with the client. We thus viewed the present interfering SAD symptoms as being influenced by an interaction between the client's tendency for anxiety and worry and an effort to reallocate parental time from the other children in the family. Drawing also from the attachment perspective, we viewed the family changes as causing a disruption in the security of the client’s attachment bond. We thus felt that a behavioral intervention would help reduce distress on separation and reduce how interfering the problem was to the individual and the family. Because we felt that the child’s perception that he was not getting enough time and attention from his mother was affecting the problem, we employed attachment theory to guide our intervention.

The parent (mother), child, and therapist met for 12 sessions over 14 weeks following a core CBT outline (see Silverman, Kurtines, Ginsburg, Weems, Lumpkin, et al., 1999; Silverman, Kurtines, Ginsburg, Weems, Rabian, et al., 1999). The major focus of our intervention, however, was reinforcing separations via contracted parent-child interactions (e.g., trips to the park, bike rides to school, going out to dinner, and so forth). Moreover, in addition to education on the CBT conceptualization of anxiety (i.e., discussing the role of learning, cognition, and physiology on the origins and maintenance of anxiety problems, see, e.g., Barlow, 1988; Beck, 1976), the attachment perspective was taught and emphasized throughout the sessions when developing the hierarchy, determining reinforcers, and discussing progress on the hierarchy. It was explained that children form a bond with their parents and that this bond enables them to feel secure that their needs will be met even when parents are not around. When there is a disruption in the bond, children may feel insecure and react in a variety of ways to ensure proximity (and thus feelings of security) with their parents. Thus, part of the goal of therapy is to teach the child adaptive ways of feeling secure and safe even when parents are not around. Contracts were presented as a way to ensure unbiased communication between parent and child, their role in fostering trust (i.e., that parent will follow through), and to show the child that his behavior affects the parent’s behavior (i.e., the parent is responsive to the child’s behavior in a consistent way).

COURSE OF TREATMENT AND ASSESSMENT OF PROGRESS

During treatment, the mother maintained a diary of salient SAD-related behaviors. As noted, during the initial assessment and the beginning of treatment, the child was unable to stay in the therapy room alone with the therapist without his mother. During
the beginning of treatment, the mother reported daily difficulty with school drop-off, refusal to play outside without mom, and intense fear going to bed and the bathroom alone. Initial sessions (1 through 3) focused on educating the parent and child on SAD and theories of how fear and anxiety are exhibited and how they can be controlled. The cognitive, behavioral, physiological, and attachment perspectives were each discussed. Early sessions also focused on creating the client’s fear hierarchy. Graduated exposure to separations at morning school drop-off began as the focus of contracts.

Initial weekly contracts required the client to leave his mother and go into school after a predetermined time of being with her at the school’s student drop-off area. This time was reduced until separation from mom at drop-off was immediate on arrival at school. Reinforcers used included trips to the park and bike rides with mom after school. In-session exposure involved mother leaving the therapy room for specified time periods. Reinforcers for these in-session exposures were primarily verbal praise from the therapist and the mother, as well as the opportunity to play a card or board game with the therapist. As the sessions progressed, the child was able to spend time alone in the therapy room with the therapist, was able to be in the therapy room alone, and would allow the mother to leave the building during therapy. In addition, daily problems with school drop-off reduced to one or two minor episodes every 2 weeks.

Later in therapy (sessions 7 through 12), contracts focused on bedtime preparation and outside play alone. Reinforcers included special trips to restaurants with mom as well as the bike rides and trips to the park. The client began using the bathroom alone, and the mother reported that bedtime was no longer a problem by the end of therapy. The mother’s reports indicated that the client still had some trouble playing outside alone.

Table 1 presents a summary of the assessment measures at posttreatment. After treatment, 3 symptoms of SAD were still reported on the ADIS, but this represented a 50% reduction from pretreatment and, more importantly, the interference the symptoms caused was also greatly reduced (i.e., a reduction from 8 to 3). The symptoms of GAD were no longer interfering at all. Moreover, the child was able to stay in the therapy room with the therapist without his mother, able to stay in the therapy room alone, and able to accompany the therapist to play areas in the clinic without the mother. The mother’s weekly reports also indicated that the number of problem separations occurring during the week in other areas (e.g., drop-off to karate class) decreased as well. The CBCL indicated more modest reductions in internalizing and anxious/depressed problem behavior (i.e., there were reductions, but both were still in the clinical range).

8 COMPLICATING FACTORS

During treatment, the parents were having mild marital difficulty. The father reportedly was not always supportive of the mother and child coming to treatment. The
father was also not able to spend as much time with the client and his siblings because of increased work responsibilities. This made allocating time to the client more difficult for the mother. In addition, the client was often oppositional to the therapy sessions. Such opposition may have been because of the father’s feelings about therapy or may have been a reaction of the child against changing his behavior or against the perception that he was being forced to spend less time with his mother. Because the client tended to be minimally engaged in the therapy process and possibly because of his age, he seemed to benefit little from cognitive modification or relaxation training strategies. However, as sessions progressed and he was reinforced for appropriate separation from his mother with planned interactions with her, he became more engaged in helping to design the contracts. Thus, the focus on contracted separations with interactions as a reinforcer seemed helpful toward overcoming some of the complicating factors.

9 FOLLOW-UP

Overall, treatment gains were maintained or continued to improve at a 6-month follow-up session. The mother and client both reported that they were very happy with the progress. The client was not having problems with school drop-off, bedtime, or going to the bathroom alone. In addition, playing outside alone had increased. Table 1 presents a summary of the assessment measures at follow-up. At follow-up, only two symptoms of SAD were reported on the ADIS, and the interference the symptoms caused was again reduced. The symptoms of GAD were reportedly still not interfering at all. The child was able to stay in the therapy room alone with the therapist without his mother, able to stay in the therapy room alone, and able to accompany the therapist to play areas in the clinic without the mother. The CBCL indicated more reductions in internalizing and the anxious/depressed subscale was no longer in the clinical range.

10 MANAGED CARE CONSIDERATIONS

This 12-session intervention was conducive to the family’s insurance psychotherapy allotment.

11 TREATMENT IMPLICATIONS

In summary, although no causal conclusions about the effect or relative effect of an attachment focus during CBT for SAD can be drawn, it appears that attachment theory can be applied without interfering with a successful CBT intervention. That is, the inter-
vention did not seem to make the child more dependent and clingy and, in fact, there were considerable treatment gains in a very severe case. Overall, it seemed that an attachment perspective was helpful in framing an understanding of SAD for the parent and fostering compliance with the CBT regimen. Utilization of the theory also helped the parent and therapist in determining reinforcers for the child’s behavior. More detailed and controlled investigations of the effect and relative effect of the attachment focus during CBT for SAD seems warranted.

Examination of the CBCL across assessment points suggests that this short-term intervention may be more effective in reducing specific interference as opposed to changing more general traits. Specifically, the ADIS showed large reductions in SAD symptoms and interference and, also, the CBCL anxious/depressed subscale was no longer in the clinical range at follow-up. Yet, the broadband internalizing subscale was still in the clinical range even at follow-up. Another finding on the CBCL that supports this interpretation was that somatic complaints actually increased. This increase might have represented a change in the child’s strategy of controlling access to his mother and avoiding exposure to anxiety-producing situations. Interestingly, large reductions in GAD as well as externalizing and aggressive behavior were found (see Table 1). From the attachment perspective, aggressive behavior can be viewed as one way the child attempts to control or influence parent behavior regarding separation and thus it is not surprising that substantial reductions in aggressive behavior might precede more general reduction in anxiety. In terms of GAD, the intense and various worries may have been primarily due to separation distress and feelings of insecurity. The intervention may thus have had direct effect on this feature of the clinical presentation.

12 RECOMMENDATIONS TO CLINICIANS AND STUDENTS

Obviously, this intervention would be less useful if the parent is not willing to work with the client. Using parent-child interactions as a reinforcer requires that the parent allocate time to spend with the child. The therapist may have to reconsider this type of intervention if the parent cannot make this commitment. Moreover, care should be taken when explaining attachment theory to avoid the appearance that the parents are being blamed for the child’s problems. However, it appeared in this case that carefully explaining both the CBT conceptualization and attachment theory made this intervention understandable and highly credible and motivating for the parent.

In summary, it appears that one of the key ingredients in the successful treatment of anxiety disorders in youth is graduated exposure to the feared stimulus or situation. The central task of the therapist is thus to facilitate this exposure. This case study suggests that reinforcing separations with activities with the attachment figure can facilitate exposure and may also have a variety of positive side effects.
REFERENCES


Carl F. Weems, Ph.D., is an assistant professor of psychology at the University of New Orleans, New Orleans, LA. He directs the child and family stress, anxiety, and phobia lab in the Department of Psychology and codirects the childhood anxiety assessment clinic. His research has focused on the developmental psychopathology of anxiety and depression. This research integrates developmental, cognitive, biological, and behavioral theories in attempting to understand the etiology and course of internalizing disorders in childhood. Special areas of interest include the assessment and treatment of childhood and adolescent anxiety disorders as well as the role of brain development, brain function, and cognitive processing in anxiety and depression. He received his postdoctoral training from Stanford University, and academic degrees from Florida International University (Ph.D.), Hollins College (MA), and Florida State University (BA).

Victor G. Carrion, M.D., is an assistant professor of psychiatry, Division of Child Psychiatry and Child Development at the Stanford University School of Medicine, Stanford, CA. He is the director of the Early Life Stress Research Program. His research focuses on the effects of childhood stress and trauma as well as the treatment of childhood emotional and behavioral disorders. He received his degrees from Mount Sinai School of Medicine (M.D.), Syracuse University (BS), and completed his residency in psychiatry at the University of Pennsylvania. He has received numerous academic awards including a 2001 NIMH Career Development Award to study the role of brain function in childhood PTSD.