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Shorter communication

Parent cognitive-behavioral intervention for the treatment of childhood anxiety disorders: A pilot study

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ABSTRACT

Strong evidence supports cognitive-behavioral therapy (CBT) for the treatment of childhood anxiety. Many studies suggest that parents play an etiological role in the development and maintenance of child anxiety. This pilot study examined the efficacy of a cognitive-behavioral intervention delivered to the parents of 31 anxious children (ages 7–13). Parents were randomly assigned to an individual parent-only CBT intervention (PCBT, $n = 18$) or wait-list control (WL, $n = 13$). PCBT demonstrated significant reductions in children's number of anxiety disorder diagnoses, parent-rated interference and clinician-rated severity of anxiety, and maternal protective behaviors at post-treatment, which were maintained at 3-months. WL did not demonstrate significant changes. There were no significant differences between conditions in child self-reported or parent-report of child anxiety symptoms. Findings were replicated in a combined sample of treated participants, as well as in an intent-to-treat sample. Parent-only CBT may be an effective treatment modality for child anxiety, though future research is warranted.

Anxiety disorders are the most common psychological conditions affecting youth (Kessler et al., 2005). Anxiety engenders significant functional impairment and distress in youth and their families (Ezpeleta, Keeler, Erkanli, Costello, & Angold, 2001) and does not remit without treatment (Costello, Angold, & March, 1995). However, anxiety disorders are highly treatable (James, Soler, & Weatherall, 2005). Cognitive-behavioral therapy (CBT) is designated a "probably efficacious" (Chambless & Hollon, 1998) first-line treatment for childhood anxiety disorders (Kendall, 2011). CBT is skill-based and traditionally delivered directly to the anxious child (e.g., (Kendall & Hedtke, 2006).

Parents play role in the development and maintenance of child anxiety (Ginsburg & Schlossberg, 2002). Beyond the transmission of biological risk, environments fostered by parents promote or discourage adaptive coping. For instance, parents experiencing anxiety demonstrate increased cognitive biases towards threat, sensitivity to child distress, and apprehension while observing their child engage in age-normative tasks (Hudson & Rapee, 2004; Turner, Beidel, Roberson-Nay, & Tervo, 2003). Thus, parent–child interactions may model anxious responses to specific stimuli or avoidant/passive coping in general (Hadwin, Garner, & Perez-Olivas, 2006).

Maladaptive parent responses, such as overprotection, may also contribute to child anxiety (Ginsburg & Schlossberg, 2002; McLeod, Wood, & Avny, 2011; Wood, McLeod, Sigman, Hwang, & Chu, 2003). Protective behaviors include permitting or encouraging avoidance of feared stimuli, providing excessive reassurance, and/or rescuing the child from age-appropriate situations. These reduce autonomy and interfere with the development of adaptive coping strategies (Murray, Creswell, & Cooper, 2009; Simpson, Suarez, & Connolly, 2012) and are common among anxious parents (Murray et al., 2009; Waters, Zimmer-Gembeck, & Farrell, 2012).

Despite the finding that the *addition* of parents to child-focused treatment has not been associated with differential treatment effectiveness (Reynolds, Wilson, Austin, & Hooper, 2012), some (Cobham, 2012; Thirlwall et al., 2013) suggest that CBT delivered *solely* to parents may be a viable, cost-effective modality for child anxiety. Using a transfer-of-control model (Silverman & Kurtines, 1996), skills are transferred from therapist to parent to child. Trials exploring parent-only CBT *group* interventions have demonstrated significant reductions in child anxiety (Cartwright-Hatton, McNally, & White, 2005; Heyne et al., 2002; Mendlowitz et al., 1999; Thienemann, Moore, & Tompkins, 2006) but are not without methodological limitations. Additional evidence suggests that *individual* parent-only CBT for child anxiety delivered via low-

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intensity modalities (e.g., bibliotherapy, telephone support) are promising (Lyneham & Rapee, 2006; Rapee, Abbott, & Lyneham, 2006; Thirlwall et al., 2013).

The present study examined the efficacy of a ten-session parent-only CBT intervention delivered individually to parents of anxious children, versus a ten-week wait-list control, comparing child anxiety symptoms and diagnoses, as well as parents' self-reported anxiety and protective behaviors. We hypothesized: 1) child anxiety symptoms and diagnoses would be significantly reduced post-treatment, versus waitlist; 2) parents' self-reported anxiety and protective would be significantly reduced post-treatment, versus waitlist; and 3) post-treatment reductions would be maintained at three month follow-up and replicable in a sample of intervention completers.

Method

Participants

Parents of anxious children were recruited via multiple community resources. Parents of 35 anxious children were eligible and consented. Of these, four withdrew prior to randomization, resulting in a final sample of 31 families (33 mothers, 23 fathers). Demographic and diagnostic characteristics are presented in Table 1. All families identified as White; one identified as Hispanic/Latino. Mean age for mothers was 42.04 years ($SD = 6.03$) and 45.07 years ($SD = 6.07$) for fathers. Annual household incomes ranged from $55,000 to $300,000 ($M = $128,400, $SD = $77,730). Children (61.3% male ranged from 7 to 13 years ($M = 9.80$, $SD = 1.78$). They met DSM-IV diagnostic criteria for one or more of the following: Separation Anxiety Disorder, Social Anxiety Disorder, Specific Phobia, and/or Generalized Anxiety Disorder. Exclusionary criteria were comorbid pervasive developmental disorder, traumatic brain injury, organic brain damage, psychotic symptoms, or engagement in concurrent psychotherapy for anxiety. Children receiving concurrent pharmacological treatment for anxiety required stable dosages one month prior to and throughout participation.

Table 1
Demographic & diagnostic characteristics of participants.

Groups				
Variable	PCBT ($n = 18$)	WL ($n = 13$)	Difference	p
Child's sex				
Male	11	8		
Female	7	5	$\chi^2 = .001$	n.s
Family's ethnicity				
Hispanic/Latino	1	0		
Non-Hispanic/Latino	17	13	$\chi^2 = .746$	n.s.
Mean age of child in yrs (*SD*)	10.04 (1.80)	9.46 (1.76)	$t(29) = .893$	n.s.
Maternal mean age in yrs (*SD*)	42.48 (7.49)	41.64 (2.50)	$t(22) = .334$	n.s.
Paternal mean age in yrs (*SD*)	46.12 (7.21)	43.45 (3.39)	$t(26) = 1.141$	n.s.
Mean household income (*SD*)	131,000 (82,417)	123,571 (74,202)	$t(18) = .199$	n.s.
Parental status				
Married/Dom. Partnership	16	13		
Divorced, not remarried	2	0	$\chi^2 = 1.544$	n.s.
Comorbidity				
None	1	3		
+1 Anxiety Dx	5	2		
+2 or more Anxiety Dx	12	8	$\chi^2 = 2.340$	n.s.
+ Externalizing Dx	4	2	$\chi^2 = .226$	n.s.

Note. PCBT: Parent Cognitive-Behavioral Therapy group; WL: Waitlist control group; Dx: Disorder Diagnosis.

Measures

Parents completed the Anxiety Disorders Interview Schedule for Children – Parent Version (ADIS-C-IV-P; (Silverman & Albano, 1996)) with trained, blinded diagnosticians ($n = 9$). A reliability criterion of 85% agreement (kappa) was set and obtained by all diagnosticians prior to the study. The ADIS yields clinician-generated severity ratings (CSRs) and parent-generated interference ratings (PIRs) for each diagnosis, ranging from 0 (least severe) to 8 (most severe). Here, CSRs were summed to create a total clinician severity score and PIRs were summed to create a total parent interference score.

Children completed the 39-item Multidimensional Anxiety Scale for Children (MASC-C; (March, 1997)), the most widely used self-report measure of child anxiety (Langley, Bergman, & Piacentini, 2002). The MASC has excellent internal consistency ($\alpha = .87$ here). Parents then completed the MASC parent version (MASC-P). Its factor structure and internal consistency ($\alpha = .89$ here) parallel the child version (Baldwin & Dadds, 2007).

Parents individually completed the 36-item Adult Manifest Anxiety Scale (AMAS; (Reynolds, Richmond, & Lowe, 2003)) to assess their own anxiety. The AMAS has good internal consistency ($\alpha = .92$ here) and high test-retest reliability (Lowe & Reynolds, 2004). Parent also completed the 25-item Parent Protection Scale (PPS; (Thomasgard, Metz, Edelbrock, & Shonkoff, 1995)) as a measure of the frequency of protective behaviors enacted toward the anxious child. The PPS has moderate internal consistency ($\alpha = .63$ here) in this age group (Mullins et al., 2004).

Procedure

All study procedures were approved by the university's Institutional Review Board and took place in the specialized child anxiety clinic housed within this institution. Interested families met with study staff to discuss the study and complete separate informed consent and assent processes. Parents then completed the ADIS to confirm eligibility and completed questionnaires. These data served as Time 1 for eligible participants. Ineligible participants were referred elsewhere. Eligible participants were then randomly assigned to the parent cognitive-behavioral treatment (PCBT, $n = 18$) or waitlist control (WL, $n = 13$). PCBT participants began the intervention with a randomly assigned therapist immediately. After treatment, they completed questionnaires and ADIS (Time 2). Three months later, they completed questionnaires and ADIS (Time 3). Parents assigned to WL began the waiting period. After ten weeks, they completed post-waitlist questionnaires and ADIS (Time 2). They then began with intervention with a randomly assigned therapist. After treatment, they completed questionnaires and ADIS (Time 3). Recruitment and retention rates did not differ significantly between groups at any time-point. Data from participants who pursued concurrent child-focused treatment while enrolled was deemed confounded and excluded. All other available data was used in analyses. Missing data was largely lost to follow-up; that is, families were unreachable or did not complete interviews and/or return questionnaires.

Parent intervention

PCBT is a ten-module, individualized intervention for parents, engaging them as “consultants, collaborators, and co-clients” in the treatment of their child's anxiety (Kendall, 2011). The intervention provided psychoeducation about the nature of anxiety, discussed strategies for responding adaptively to child anxiety, and demonstrates essential cognitive-behavioral techniques for parents to teach their children (Albano & Kendall, 2002). Table 2 overviews