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The Role of Control in Childhood Anxiety Disorders

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This study investigated the role of control beliefs in childhood anxiety disorders. The sample comprised 117 youth aged 9–17 years (86 met diagnostic criteria for an anxiety disorder and the remaining 31 were nonreferred comparison participants). Participants' anxiety levels and their perceptions of control over anxiety-related events (e.g., "things that might be harmful," "feeling shaky or nervous") were assessed. Findings indicated that perceived control over anxiety-related events was significantly negatively correlated with self-reported anxiety levels. Moreover, youth with anxiety disorders reported significantly lower perceived control about anxiety than the nonreferred participants. Findings were consistent with theory and suggest that anxiety disorders in youth are associated with beliefs that anxiety is uncontrollable.

KEY WORDS: anxiety; control; childhood; disorders.

Cognitive models of emotional disorders indicate that anxiety disorders are characterized by faulty or negative ways of thinking (Beck, 1976, 1985; Ellis, 1962). Results from studies aimed at investigating the applicability of cognitive models in children and adolescents suggest that they may be useful for furthering an understanding of internalizing problems in youth such as the anxiety disorders (e.g., Epkins, 1996; Leitenberg, Yost, & Carroll-Wilson, 1986; Leung & Wong, 1998; Weems, Berman, Silverman, & Saavedra, 2001). Gathering data on the types of thoughts that are associated with anxiety disorders in childhood may have implications for understanding these disorders in terms of phenomenology, clinical characteristics, and perhaps their development and treatment. Theory-driven research aimed at testing models of the cognitive characteristics of youth with childhood anxiety disorders is particularly important. The purpose of this study was to explore the role of control beliefs in childhood anxiety disorders by testing part of Barlow's model of control and anxiety (Barlow, 1988, 2002).

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Understanding the role of control beliefs in anxiety disorders has been of particular interest in recent years (Chorpita & Barlow, 1998). Barlow's model (see Barlow, 1988, 2002; Rapee, Craske, Brown, & Barlow, 1996) of anxious apprehension suggests that a perceived lack of control over "external" threats (i.e., events, objects, or situations that are fear producing for an individual) and/or control over negative "internal" emotional and bodily reactions are central to the experience of anxiety problems. That is, beliefs that anxiety-related events and sensations are uncontrollable is part of what makes anxiety a "problem" for individuals with anxiety disorders. In other words, nonpathological anxiety in individuals who do not have anxiety disorders is differentiated, in part, from pathological anxiety in that the latter is characterized not only by heightened levels of anxiety in response to threatening situations but also by the belief that threatening events are uncontrollable. Empirical support exists for this conceptualization of control in adult samples. Specifically, Rapee et al. (1996) found that low perceptions of control over external threats and internal emotional reactions are related to elevated self-reported anxiety, and that adults with anxiety disorders had lower perceptions of control over external threats and internal emotional reactions than nonreferred adults (Rapee et al., 1996).

Barlow's model of control (Barlow, 2002) may be potentially useful for understanding anxiety disorders in youth as well as adults. Empirically clarifying the role that control beliefs play in childhood anxiety could enhance clinical understanding and provide support for the model in youths. Although no empirical research has directly tested Barlow's model of control in youths, several investigators have examined the role of control in childhood anxiety in primarily nonclinical samples. For example, research on locus of control in youth has provided some indirect evidence that control is related to anxiety (see Chorpita & Barlow, 1998).

The relation between external locus of control beliefs and anxiety in children has been investigated in several studies with the Nowicki and Strickland (1973) locus of control (NSLOC) scale. An external locus of control involves an individual's perception that control over reinforcement (conceptualized as positive outcomes) is because of some external factor such as chance or fate (Rotter, 1975). Overall, there seems to be a fairly consistent relation between an external locus of control and self-reported anxiety in children with correlations ranging from .23 to .68 (see Ollendick, 1979; Rawson, 1992; Shriberg, 1974). For instance, both Nunn (1988) and St-Yves, Dompierre, Freeston, Jacques, and Malo (1989) found significant and positive correlations between externality on the NSLOC scale and trait anxiety as measured by the State–Trait Anxiety Inventory for Children (STAIC; Spielberger, 1973) in nonclinical samples, Nunn (1988) reported $r = .31$ in a sample of 267 youth in grades five through eight and St-Yves et al. (1989) reported $r = .24$ in a sample of 271 youth with a mean age of 10 years. Little is known about the role of locus of control and *clinical* anxiety as none of these studies employed clinic-referred samples of anxious children.

With regard to testing Barlow and colleagues' model, locus of control and control in Barlow's model are quite distinct. In particular, an external locus of control as measured by the NSLOC, involves an individual's belief that control over reinforcement is because of some external factor such as chance or fate and not an external threat as in Barlow's model. Similarly, in Barlow's model, control over anxiety-related

events is emphasized and not reinforcement as on the NSLOC. In addition, external locus of control is not theorized to be inherently pathological or anxiogenic (Rotter, 1975). Assessment of control over anxiety as conceptualized in Rapee et al. (1996) is needed to provide a more precise test of Barlow and colleagues model in youth. Research examining whether a perceived lack of control over external threats and/or control over negative internal emotional and bodily reactions is related to childhood anxiety disorders would provide a clear test of the model of control for youth with anxiety problems. Such research may also provide clinically relevant information.

The purpose of this study was to examine the role of control beliefs in anxiety disorders in youth. Guided by Barlow's model of control (Barlow, 1988, 2002) and the research by Rapee et al. (1996) we tested two main hypotheses. First, we hypothesized that perceived control over anxiety-related external events and internal reactions to anxiety would be negatively correlated with self-reported anxiety levels and with an external locus of control. Second, we hypothesized that youths who were diagnosed with anxiety disorders would have lower perceived control over anxiety-related external events and lower perceived control over their internal reactions to anxiety than nonreferred participants. With respect to our second hypothesis, we felt it important to provide a fairly strong test. Specifically, we hypothesized that control as conceptualized in Barlow's model should discriminate clinically anxious from nonanxious controls even when statistically controlling for self-reported levels of anxiety and external locus of control. In this way the unique contribution of assessing "beliefs about control over anxiety" can be ascertained. More specifically, Barlow's model implies that although control over anxiety should be associated with self-reported anxiety levels and locus of control, beliefs about control over anxiety is a distinct facet of anxiety disorders and thus should predict anxiety disorder status beyond that predicted by self-reported anxiety levels and locus of control. Because control as conceptualized in Barlow's model involves reasoning that is to some extent cognitively complex, the potential influence of age and gender on findings pertaining to the hypotheses was also explored.

METHOD

Participants

The sample comprised 117 children and adolescents aged 9–17 years with a mean age of 12.4 years. Participants were from mainly Caucasian (34%) and Hispanic/Latino (57%), (4% were African American, 5% other ethnic backgrounds) middle and upper middle class families (median income $30,000) residing in the Miami-Dade area of southeast Florida. For convenience the word "children" will be used to denote both children and adolescents unless specified. Fifty-one percent of the sample was female. Eighty-six participants were referred for anxiety problems to a university-based childhood anxiety and phobia clinic and the remaining 31 participants were nonreferred comparison participants (as described later under procedures). The clinic sample comprised children who met primary diagnostic criteria for

either separation anxiety disorder ($n = 26$), specific phobia ($n = 24$), social phobia ($n = 23$), or generalized anxiety/overanxious disorder ($n = 13$).

Assessment of Control Over Anxiety

Control was assessed by adapting the method used in Rapee et al. (1996). A set of 14 questions was designed to assess perceived lack of control over "external" threats (e.g., events, objects or situations that are fear producing for an individual) and another set of 16 questions was designed to assess control over negative "internal" emotional and bodily reactions associated with anxiety (e.g., shaking or trembling, the subjective experience of anxiety). In adapting the methods used in Rapee et al. (1996), each of Rapee et al.'s questions were modified to render them more understandable by youth with the goal of creating questions that could be easily read by late elementary school children. The items with preliminary modifications were presented to children aged 7–13 years to explore the comprehensibility of the modified questions. Additional modifications to items were then made. An example of the question modifications is as follows: "There is little I can do to influence people's judgments of me" was changed to "I can change the way that people feel about me."

The "Flesch–Kincaid Grade Level" score on the modification of Rapee et al.'s (1996) question set was 5.3 and thus suggests that the measure is suitable on average for those with a 5th grade reading level. Moreover, the "Flesch Reading Ease" score is high (i.e., 81%; see Flesch, 1948; Thomas, Hartley, & Kincaid, 1975). The questions that were asked to the children are indicated in Table I. Children were asked to rate their agreement with each question along a rating scale with the following qualifiers: 0 (*none*), 1 (*a little*), 2 (*some*), 3 (*a lot*), or 4 (*very very much*). Children wrote the number corresponding to their choice next to each item. Total control belief score was obtained by summing the items and the range of the total score was 0–120 with lower scores indicated less control over anxiety. The "Internal Reactions" score was obtained by summing the 16 internal reaction items and thus has a possible range of 0–64. The "External Events" score was computed in a similar manner and thus has a possible range of 0–56. Lower scores indicate less perceived control over internal anxiety reactions and external threatening events, respectively.

Preliminary data were collected to examine internal consistency and factor structure in a sample of school-aged students ($N = 192$; mean age 15.7 years). Results indicated that a two-factor model accounted for 43% of the variance in scoring and that the salient factor loadings ($>.35$) were conceptually congruent with the two theoretically derived scales. Cronbach's internal consistency estimates (i.e., coefficient alpha) were .94, .91, and .86 for the Total scale, Internal, and External subscales, respectively. The scree test (Tabachnick & Fidell, 1996) suggested that one unique factor could be chosen as the best solution and this first factor explained 37% of variance. Such results suggested that the construct might be unidimensional in youth. For this reason, our focus was on the total scores in this investigation but we explored findings with the subscales as well.

For the entire sample of children in this study, Cronbach's internal consistency estimates on the anxiety control scores were .93, .89, and .86 for the Total scale, Internal, and External subscales, respectively. Because this study included children

Table I. Questions Used to Assess Anxiety Control Beliefs

1. I can usually stay away from things that might hurt me pretty easily. (E)
2. I can deal with hard or difficult things that happen without other people helping me. (E)
3. When I am in a place that gets me nervous or afraid, I can take charge over and control my feelings. (I)
4. I can usually stop my anxiety from being seen by other people. (I)
5. When something scares me, there is always something I can do. (E)
6. I can take charge and control my feelings. (I)
7. I can change the way that people feel about me. (E)
8. I would be able to get away from a scary or frightening place. (E)
9. If I begin to shake or tremble I can stop myself. (I)
10. I can usually stop thinking about things that make me nervous or afraid if I try. (I)
11. When I am scared or nervous, I am able to stop myself from breathing too hard. (I)
12. I can usually change how much a situation is unsafe for me. (E)
13. I am able to change how much nervousness or fear I feel. (I)
14. There is usually something I can do to change scary things. (E)
15. I can make myself feel good again when bad things happen to me. (E)
16. If something is going to hurt me, I know what to do. (E)
17. I can usually calm myself down when I want to. (I)
18. I am always sure what I will do when I am nervous or afraid. (I)
19. I can usually make sure people like me if I try real hard. (E)
20. Most things that make me nervous are things I can take charge of and control. (E)
21. I always know exactly how I will act when hard and difficult things happen. (I)
22. I know how to deal with feeling scared or anxious so I do not care if I become scared or anxious. (I)
23. I can usually control what people think about me. (E)
24. I can usually deal with hard problems. (E)
25. When I hear that someone is very sick, I don't worry that I will get sick too. (E)
26. When I am anxious or nervous, I can still think about things other than my feelings of anxiety. (I)
27. I can handle scary things I did not expect or think would happen as good as I can handle scary things that I expected or thought would happen. (I)
28. I try to deal with my anxiety because I may be able to do something to help how much I feel it. (I)
29. I am good at getting along with people who bug me. (E)
30. I am good at taking care of things that go wrong. (E)

Note. (E)xternal Threat Item; (I)nternal Reaction Item.

aged 9–12 and these aged youth were not included in the preliminary study we established internal consistency and concurrent validity estimates separately for these children. In the subsample of children aged 9–12, in this study, Cronbach's internal consistency estimates on the anxiety control scores were .94, .89, and .87 for the Total scale, Internal, and External subscales, respectively and concurrent associations with the RCMAS were similar to the total sample (i.e., rs ranged from .37 to .43; all p values were $<.01$).

Other Child Completed Measures

Revised Children's Manifest Anxiety Scale (*RCMAS;* Reynolds & Richmond, 1978)

The RCMAS was used to assess self-reported anxiety levels. The RCMAS is a widely used 37-item scale (higher scores indicate higher levels of anxiety) and has been found to have satisfactory reliability and validity estimates (e.g., Reynolds & Richmond, 1978). For example, a 9-month test–retest correlation of $r = .69$ has been reported in school-aged children (Reynolds, 1981). The RCMAS also has satisfactory convergent validity estimates with other self-report measures of childhood

anxiety, e.g., $r = .81$ with the trait version of Spielberger's (1973) STAIC (Reynolds & Richmond, 1978).

Nowicki–Strickland Locus of Control Scale (*NSLOC;* Nowicki & Strickland, 1973)

The NSLOC was used to assess locus of control. The NSLOC is probably the most widely used measure of locus of control in children. The NSLOC scale is patterned after Rotter's I–E scale. The 20-item version (Nowicki & Strickland, 1973) was used to reduce the participants' burden. Higher scores indicate a greater external locus of control. The NSLOC has good test–retest reliability and convergent validity estimates with other indices of control as well as indices of achievement and anxiety. For example, the NSLOC has demonstrated test–retest reliability estimates of $r = .66$ and convergent validity estimates with intellectual achievement of $r = .51$ (see Nowicki & Strickland, 1973; Nunn, 1988).

Diagnostic Assessment

The Anxiety Disorders Interview Schedule for *DSM-IV*: Child and Parent versions (ADIS-C and ADIS-P, respectively; Silverman & Albano, 1996) were administered to all clinic-referred children and parents, respectively. The ADIS-C and ADIS-P are semistructured interviews that emphasize the anxiety disorders. The interviews permit the clinician to assess and diagnose other major childhood disorders, including the externalizing and affective disorders, according to *DSM-IV* criteria. All diagnostic interviews were conducted by either the program director, a postdoctoral psychologist, or advanced graduate students in psychology. Diagnosticians were trained by observing live and videotaped interviews. Initial discrepancies were discussed to reach agreement in training sessions. All diagnosticians were required to meet reliability criteria of 100% agreement on five child–parent composite interviews before conducting an interview by themselves. In cases of multiple diagnoses the relative impact or interference of each diagnosis was used for ascertaining the primary diagnosis, the secondary diagnosis, etc., as delineated in the ADIS-C/P guide (see Albano & Silverman, 1996). A subsample of the participants in this study comprised the sample in a reliability study of the ADIS-C/P (i.e., Silverman, Saavedra, & Pina, 2001). Reliability estimates were in the good to excellent range (Kappas ranged from .80 to .92) for composite anxiety disorder diagnoses.

Procedures

Informed parent/guardian consent and child assent were obtained before conducting the assessment procedures. The nonreferred sample was obtained from the community by recruiting the children and child/adolescent relatives of individuals attending classes at an urban university. This method was used to obtain a comparison sample demographically similar to the clinic-referred sample. Announcements were made in classes that students could refer themselves and their children or

their child/adolescent relatives and their parents for extra credit in the class. Parents were informed through the consent letter that participants were needed for a study on childhood thoughts and feelings. All nonreferred children were screened for severe psychological problems by using the fear and interference ratings from the separation anxiety disorder, specific phobia, social phobia, and generalized anxiety disorder subsections of the ADIS. Moreover, nonreferred children scored lower in self-reported anxiety than clinic-referred children (see Table III). Screening was administered by either the first author, a postdoctoral psychologist, or advanced graduate students in psychology. All assessments of the nonclinic sample were completed in the same setting as the clinic referred sample (i.e., parents/guardians brought children to the clinic to complete the measures). Trained research assistants helped children who had trouble completing questionnaires (e.g., they read questionnaires to children who had difficulty reading the items).

The clinic sample was recruited from referrals to a childhood anxiety disorders clinic. The assessment procedures consisted of diagnostic and self-report measures administered to children and parents and were conducted in the same clinic setting as the nonreferred children (i.e., interviews were conducted by either the first author, program director, a postdoctoral psychologist, or advanced graduate students in psychology and trained research assistants helped children who had trouble completing the questionnaires).

RESULTS

Preliminary Analyses

Before conducting analyses to test the main hypotheses, several descriptive analyses were conducted. Clinic-referred and nonclinic-referred children were compared to examine whether systematic differences in either age or gender might influence the results. *T*-tests indicated that clinic-referred children, mean age = 12.2 (SD = 2.1) years, were not significantly different in mean age from nonclinic-referred, mean age = 13.0 (SD = 2.1) years. Chi-square analyses indicated that the clinic-referred and nonclinic-referred groups did not significantly differ with regards to gender. Inspection of distribution of scores indicated that the measures demonstrated acceptable score range and skew for the planned parametric analyses.

Are Anxiety Control Scores Related to Self-Reported Anxiety Levels in Youth?

Pearson correlations were computed to test the hypothesis that perceived control over anxiety-related external events and internal reactions to anxiety would be negatively correlated with self-reported anxiety using the entire sample ($N = 117$). Results of these analyses including means and standard deviations are presented in Table II. Total anxiety control score and scores on both internal bodily reactions and external threat subscales were significantly negatively correlated with RCMAS scores. The anxiety control scores also were significantly correlated with NSLOC scores and the relation was negative.

Table II. Correlations Among Control, Anxiety, and Age ($N = 117$)

Variable	1	2	3	4	5	*M*	*SD*
1. RCMAS						12.02	6.8
2. NSLOC	.39**					8.91	4.9
3. Total control beliefs	−.47**	−.22*				70.72	21.2
4. Internal reactions	−.47**	−.20*	.96**			32.70	11.4
5. External events	−.43**	−.23*	.95**	.83**		38.02	10.8
6. Age	−.01	−.16	−.08	.02	.15	12.43	2.8

Note. RCMAS, Revised Children's Manifest Anxiety Scale Total anxiety score; NSLOC, Nowicki–Strickland Locus of Control scale.
$^{*}p < .05$. $^{**}p < .01$.

Do Youth With Anxiety Disorders Have Lower Perceived Control Than Nonreferred Children?

We next tested the hypothesis that youth who were diagnosed with anxiety disorders would have lower perceived control over anxiety than nonreferred participants. Between group comparisons of children with anxiety disorders and the nonreferred comparison children were conducted using ANOVAs. Results are summarized in Table III and indicated that children with anxiety disorders had lower overall control, lower perceived control over anxiety-related external events scores and lower perceived control over anxiety related internal reaction scores than the nonclinic-referred comparison children.

Sequential logistic regression (Tabachnick & Fidell, 1996) was used to test the unique contribution of assessing control over anxiety in predicting anxiety disorder status and explore the role of age and gender on the findings. The logistic regression analysis model employed anxiety disorder status as the dependent variable with age, gender, RCMAS scores, and NSLOC scores entered in the first block as predictors. The anxiety control beliefs total score was entered in the second block and an interaction term of age by the total anxiety control score in the third block. The interaction term was included to further determine if age interacted with control in predicting anxiety disorder status. Centering of age scores was used to reduce the influence of

Table III. Summary of Comparisons of Clinic Children and Nonclinic-Referred Children

Variable	Clinic *M (SD)* $n = 86$	Nonreferred *M (SD)* $n = 31$	*F*	*d*
Index of Anxiety				
RCMAS	13.41 (6.7)	8.07 (5.7)	15.16***	.83
Indices of Control				
Total Control Beliefs	66.13 (20.3)	83.45 (17.7)	17.31***	.88
Internal Reactions	30.01 (11.1)	40.16 (8.8)	21.04***	.96
External Events	36.12 (10.6)	43.29 (9.5)	10.99**	.69
NSLOC	9.16 (5.3)	8.23 (3.4)	0.79	.19

Note. RCMAS, Revised Children's Manifest Anxiety Scale Total anxiety score; NSLOC, Nowicki–Strickland Locus of Control scale; *d*, Cohen's *d* effect size statistic.
$^{**}p < .01$. $^{***}p < .001$.

colinearity (Tabachnick & Fidell, 1996). Overall classification accuracy of the full logistic regression model (all predictors entered) was 78% and the model was significant, $\chi^2(6) = 29.44$, $p < .001$. Of particular interest, anxiety control beliefs predicted anxiety disorder status while controlling for RCMAS scores and NSLOC scores, the model chi-square at block two was significant $\chi^2(5) = 25.65$, $p < .001$; Wald = 7.02, $p < .01$ for anxiety control beliefs. Results also suggested that the relation was not influenced by age or gender nor did age interact with anxiety control beliefs in the prediction of anxiety disorder status.

DISCUSSION

Results supported the hypothesis that perceived control over anxiety-related external events and internal reactions to anxiety would be negatively correlated with self-reported anxiety. These results are consistent with findings in an adult sample (e.g., Rapee et al., 1996) and also with previous research showing that an external locus of control is related to anxiety in childhood (e.g., Ollendick, 1979; Rawson, 1992; Shriberg, 1974). The hypothesis that children who were clinic-referred for anxiety problems would have lower perceived control over anxiety-related external events and lower perceived control over their internal reactions to anxiety than comparison children was also supported by the findings. Moreover, results of the logistic regression analysis indicated that the perceptions of control over anxiety predicted anxiety disorder status even when controlling for existing measures of anxiety (i.e., RCMAS) and control (i.e., NSLOC). These results suggest that control beliefs not only differentiate clinically anxious children from nonreferred children but also that assessing anxiety control beliefs may add to understanding the clinical picture of anxious children by tapping an aspect of anxiety disorders not assessed by the measures of anxiety and locus of control.

Taken together, the findings are consistent with Barlow's model of anxiety disorders (Barlow, 1988) and suggest that the model may have utility with youth. Specifically, the results provide initial support for the notion that a perceived lack of control over external threats and control over negative internal emotional and bodily reactions is important to the experience of anxiety in youth as is found in adult samples (Rapee et al., 1996). Such findings should only be taken as preliminary evidence of the validity of Barlow's model of the origin of anxious apprehension in youth (Barlow, 1988) because the model posits several other vulnerabilities as well as factors that may moderate control beliefs. Additional research is thus needed to explore those aspects of the model.

Examination of the effect sizes in the correlational analyses reveals that the association between the RCMAS and total control beliefs was moderate and the association of anxiety control beliefs with the NSLOC was even smaller. Such findings, however, are similar to previous research examining the association between self-reported anxiety and control generally (Nunn, 1988; St-Yves et al., 1989). On the basis of Cohen's heuristic (Cohen, 1988), the effect size comparing the anxiety disorder group with the nonreferred sample on total control beliefs was fairly large ($d = .88$; see also Lipsey, 1990). Such findings may have resulted from utilizing

extremes (i.e., comparing youth with anxiety disorders versus nonreferred comparison youth) or may indicate that control over anxiety may impact the symptoms of anxiety less than it impacts other areas in the phenomenology of an anxiety disorder such as impairment or distress. Although the latter suggestion is speculative at this point, future research might benefit from examining the role of control over anxiety in functional impairment.

Future research may also benefit from further examining the structure of anxiety control beliefs. Results from our preliminary study as well as the high degree of correlation between the external threats and internal emotional reactions subscale in this study's sample suggests that youth may not differentiate internal and external threat in the same way as adults. Thus, although conclusions from this study about the global construct of control over anxiety are encouraging more research is needed on the subcomponents of control over "external" threats and control over negative "internal" emotional and bodily reactions in youth.

The study's findings should also be considered in light of its limitations. The first limitation is the reliance on a single informant for the assessment of control beliefs. Future research may benefit from utilizing multiple informants to gather information on children's anxiety control beliefs. Although the nature of control beliefs may make the children themselves the best source of information, children's ratings after watching videotaped anxiety control vignettes may be another avenue to assess the construct and test the model. Second, the present study does not inform us regarding whether control is prospectively predictive or just concurrently associated with anxiety and its disorders in youth. Longitudinal research is needed to examine control's relation to the development of anxiety disorders.

In summary, the findings provide initial support for Barlow's model of anxiety disorders (Barlow, 1988) and its utility with samples of youth. Additional research on the model seems warranted given the potential that the results of this study and similar research may provide clinically relevant information. For example, the application of research on control and depression has led to effective treatments for depression (see Weisz, Thurber, Sweeney, Profitt, & LeGagnoux, 1997). It is thus important to continue studying the role of control in anxiety because if the patterns found here are found in other studies such findings may have potential treatment implications. For instance, use of the items presented in Table I may facilitate the identification of beliefs that the clinician could focus on during cognitive modification sessions in treatment. Helping the child to recognize the role of their control beliefs in their anxiety's maintenance and helping them to develop positive control self-statements is one potential avenue for further investigation. Treatment studies utilizing the assessment of control beliefs, however, would be required to truly determine the utility of such techniques for enhancing the treatment of anxiety disorders.

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