

Beyond Behavioral Inhibition: Etiological Factors in Childhood Anxiety

Katharina Manassis, *University of Toronto*
 Jennifer L. Hudson, *Macquarie University*
 Alicia Webb, *Temple University*
 Anne Marie Albano, *New York University*

Theoretical models of childhood anxiety have emphasized temperamental vulnerability, principally behavioral inhibition, and its interaction with various environmental factors promoting anxiety (for example, overprotective parenting, insecure attachment, life stress). Although clearly establishing the importance of both nature and nurture in anxious psychopathology, these models have not adequately explained the diversity of anxiety disorders presenting in childhood, the fact that some children's diagnoses change over time, and the progression (in some children) from highly comorbid presentations in middle childhood to one predominant disorder in adolescence. This article presents additional factors that may be helpful to consider when trying to understand these findings and describes applications to promote healthy adjustment in anxious youngsters. Such factors include specific risks for certain disorders, developmental changes and cultural factors affecting the intensity and expression of anxiety, and the emergence of various more or less adaptive coping styles.

YOUNG CHILDREN who are very cautious and reluctant to enter new situations are often brought to the attention of psychologists, pediatricians, and child psychiatrists because of concerns about a possible emerging anxiety disorder. Parents wonder what will happen to the child in the long term and how to improve his or her prognosis. Clinicians cannot answer these questions without an empirically based understanding of factors that (a) influence the progression of early anxious tendencies to diagnosable anxiety disorders and (b) influence the specific type of disorder that emerges in an individual. This article offers a step toward such an understanding, though many unanswered questions remain. A review of general etiological vulnerabilities is provided, followed by descriptions of additional, important determinants of outcome that include factors that are relatively specific to certain disorders, developmental changes, coping styles, and cultural influences.

Constitutional Factors

Familial Factors

Both family and twin studies have found a definite familial contribution to childhood anxiety disorders. Anxiety disorders were found to be elevated in children of parents with (a) anxiety disorders or mixed anxiety-

depression (Beidel & Turner, 1997); (b) social phobia (Mancini, van Ameringen, Szatmari, Fugere, & Boyle, 1996); or (c) agoraphobia (Capps, Sigman, Sena, Henker, & Whalen, 1996). Conversely, parents of children with school refusal had elevated rates of anxiety and depressive disorders (Martin, Cabrol, Bouvard, Lepine, & Mouren-Simeoni, 1999). Several twin studies (e.g., Thapar & McGuffin, 1995) have established a genetic contribution to childhood anxiety symptoms and disorders. Further studies will clarify the degree of genetic versus environmental contribution to specific anxiety disorders. In a recent twin study, for example, Topolski and others (1997) found that shared environmental effects played a moderate role in separation anxiety disorder but not in over-anxious disorder (OAD). In contrast, genetic influences appeared to predominate in OAD. Specific genetic loci are now being researched.

Behavioral Inhibition

The constitutional factor examined most extensively in relation to childhood anxiety is a trait termed *behavioral inhibition*. Behavioral inhibition is an aspect of temperament measurable in the laboratory, characterized by a tendency to restrict exploration and avoid novelty (Kagan, Reznick, & Gibbons, 1989). Human and primate studies have confirmed the heritability of this trait and its physiological basis (Kagan et al., 1989). Inhibited children show evidence of chronically high sympathetic arousal, leading to the hypothesis that inhibition occurs when there is a reduced threshold to arousal in the amygdala, a part of the limbic system (Kagan et al., 1989).

Persistent inhibition has been linked prospectively to multiple anxiety disorders in middle childhood (Biederman

Cognitive and Behavioral Practice 11, 3–12, 2004

1077-7229/04/3-12\$1.00/0

Copyright © 2004 by Association for Advancement of Behavior Therapy. All rights of reproduction in any form reserved.

 **Continuing Education Quiz located on p. 126**

et al., 1990) and, more recently, to social phobia in adolescence (Schwartz, Snidman, & Kagan, 1999). Fortunately, most children become less inhibited over time. Persistence of inhibition has been linked to overprotective parenting (Arcus, 1991), suggesting that early interventions to change parenting practices may ameliorate the effects of this risk factor. Although a large body of research supports behavioral inhibition as a vulnerability factor to anxiety, other factors must also be considered in predicting the development of disorder, as described below.

Cognitive Biases

Cognitive biases, in particular attentional and interpretational biases, are thought to play a role in many anxiety disorders, with relative specificity depending on the type of bias. Although most attentional bias studies have been conducted with adults (e.g., McNally, 1998), there is some evidence to support its occurrence among anxious children. Using the Stroop task, a timed color-naming task of both neutral and threatening words, Martin, Hoder, and Jones (1992) found that spider-phobic children had slowed color-naming times when shown spider-related words (e.g., web), but not neutral words (e.g., fly). Anxious children were also faster to react to a probe preceded by a threatening rather than a neutral word on dot-probe tasks (e.g., Vasey, Daleiden, Williams, & Brown, 1995), showing selective attention to threat cues. One group of researchers found attentional biases for spider-related stimuli in the control group as well as the highly fearful group (Kindt, Bierman, & Brosschot, 1997); however, with age, the bias declined in the control but increased in the highly fearful group. Taken together, Kindt et al. argue that children's attentional biases for threatening stimuli may be normal at early developmental stages and that with age, nonanxious children develop an inhibition of these biases. Anxious children, on the other hand, fail to inhibit these biases predisposing them to fears and phobias.

Interpretation bias has been evidenced in studies comparing anxious versus nonanxious children's interpretation of homophones (e.g., dye or die) and ambiguous stories (e.g., Barrett, Rapee, Dadds, & Ryan, 1996). Results indicated that anxious children were more likely to interpret ambiguous situations in a threatening way. Barrett and colleagues (1996) found that parent-child interactions influenced children's tendency to interpret ambiguous material as threatening.

Environmental Factors

Parent-Child Relationships: Attachment

Emotional aspects of early parent-child relationships have been described and evaluated in the laboratory by

attachment theorists (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1973). Attachment theory proposes that infants are predisposed to behave in ways that enhance proximity to their caregivers, and caregivers are prone to behave reciprocally (Bowlby, 1973). By the end of the first year of life, this process results in the primary caregiver serving as a "secure base" from which the infant can explore the world, returning at times of distress. Children considered securely attached are confident that their caregiver will respond in consistently reassuring ways to their distress, while children who are insecurely attached are not (Bowlby, 1973; Main, Kaplan, & Cassidy, 1985). It stands to reason, therefore, that insecurely attached children would be more vulnerable to anxiety. In fact, insecure attachment has been linked with childhood anxiety symptoms concurrently (Manassis, Bradley, Goldberg, Hood, & Swinson, 1994; Stevenson-Hinde & Shouldice, 1990), and with anxiety disorders prospectively (Warren, Huston, Egeland, & Sroufe, 1997). Conversely, secure attachment may serve as a protective factor from anxiety. Interventions that promote secure attachment have been developed (Erickson, Korfmacher, & Egeland, 1993; Lieberman, Weston, & Pawl, 1991) and may be considered for young children showing other vulnerability factors (for example, behavioral inhibition). Warren and colleagues (1997) have also suggested that psychotherapy with young children is more likely to succeed if the therapist is perceived as a "secure base."

Though some would argue that child temperament could influence specific attachment classification (Belsky & Rovine, 1987), the preponderance of current evidence suggests that at least the secure/insecure distinction is relatively independent of temperament (reviewed in Manassis, 2001). Potential links between various types of insecure attachment and anxiety disorders are discussed below in the context of children's emerging coping styles.

Parent-Child Relationships: Parenting Style

Studies of anxious adults also suggest a connection between anxiety and parenting styles characterized by low levels of care or warmth and high levels of control or overprotection (e.g., Arrindell, Emmelkamp, Monsma, & Brikman 1983). Cognitive biases associated with anxiety, however, may affect retrospective recall of parent-child relationships. Observational studies of parent-child interactions, not subject to these biases, have generally supported the link between anxiety and overprotective parenting. For example, Hudson and Rapee (2001) found that mothers of anxiety-disordered children were more controlling and intrusive during a puzzle task than mothers of nonclinical children. Hudson and Rapee propose a bidirectional relationship, such that parents of anxious children may be more likely to become overinvolved with their child in an effort to reduce and prevent the child's

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات