

The Development of Cognitive Vulnerability to Hopelessness Depression

Sabina Sarin
Yale University

John R. Z. Abela
McGill University

While several studies have supported the hopelessness theory's claim that depressogenic inferential styles serve as vulnerability factors to depression, little research has examined how these styles develop. The current study examined three theories of their development in children between the ages of 7 and 13. Results supported two of these theories, indicating that children with pessimistic inferential styles report experiencing higher levels of specific negative life events than children without these styles. Furthermore, parents of children with a depressogenic inferential style about consequences provided more pessimistic feedback about the consequences of negative events in their child's life than parents of children without this style. Results suggest that different pathways lead to the development of the three pessimistic inferential styles.

While it was once believed that childhood depression was a rare or transitory developmental phenomenon, evidence has since accumulated depicting the high prevalence rate, chronic course and debilitating consequences of depression in children (Schwartz, Gladstone, & Kaslow, 1998). As prevalence rates of depression have soared to epidemic proportions (Lewinsohn, Rohde, Seeley, & Fisher, 1993), the average age of onset has decreased (Reich et al., 1987). Epidemiological studies have recently reported that by 14 years of age, as many as 9% of children have already experienced at least one episode of severe depression (Lewinsohn et al., 1993). Research further indicates that childhood depression is a chronic disorder with up to 84% of depressed children experiencing depressive episodes in adulthood (Harrington, Rutter, & Frombonne, 1996). Childhood depression has been shown to be associated with a wide range of psychiatric and physical health problems in adulthood, as well as impairment in multiple domains of functioning (e.g., Fleming, Boyle, & Offord, 1993; Kandel & Davis, 1986; Rao et al., 1995).

The research reported in this article was supported by a New Scholar Award from the Social Sciences and Humanities Research Council of Canada awarded to John R. Z. Abela. We would like to thank Nadia Castiel, David D'Alessandro, Melanie Ewing, Hugo Gagnon, Nima Ghomeshi, Emily Haigh, Alexandra McIntyre-Smith, Zohreen Murad, Anna Radzich, Caroline Sullivan, and Krystyna Zaluski for administering questionnaires to children and their parents, as well as for scoring questionnaires.

Portions of this article were presented at the meeting of the Association for the Advancement of Behavior Therapy, Philadelphia, PA, November, 2001.

Correspondence concerning this article should be addressed to Sabina Sarin, Department of Psychology, Yale University, P.O. Box 208205, New Haven, CT 06520-8205; e-mail: sabina.sarin@yale.edu.

The Hopelessness Theory of Depression

In response to such alarming statistics, a vast amount of research has been conducted examining the etiology of depression. One cognitive theory that has obtained promising results in both adult and child samples is the hopelessness theory of depression (Abramson, Metalsky, & Alloy, 1989). According to the hopelessness theory, certain individuals possess depressogenic inferential styles that make them vulnerable to experiencing depressive episodes. The theory delineates three such styles. The first is the tendency to attribute negative events to global and stable causes. The second is the tendency to perceive negative events as having many disastrous consequences. The third is the tendency to view the self as flawed or deficient after negative events occur. Each of these styles predisposes individuals to hopelessness depression by making it more likely that they will make depressogenic inferences following the occurrence of negative events. Making such inferences increases the likelihood that hopelessness will develop. Hopelessness is defined as the expectation that negative events will occur or that positive events will not occur, coupled with the expectation that one can do nothing to change this forecast. Once hopelessness develops, hopelessness depression is inevitable, since hopelessness is viewed as a necessary and sufficient cause of this subtype of depression.

Several studies have provided strong support for the hopelessness theory's claim that depressogenic inferential styles serve as vulnerability factors to depression, in both adult (Abela, 2002b; Abela & Seligman, 2000; Alloy & Clements, 1998; Alloy et al., 2000; Metalsky & Joiner, 1992; Metalsky, Halberstadt, & Abramson, 1987; Metalsky, Joiner, Hardin, & Abramson, 1993) and child (Abela & Sarin, 2002; Cole & Turner, 1993; Dixon & Ahrens, 1992; Hilsman & Garber, 1995; Nolen-Hoeksema, Girgus, & Seligman, 1992; Panak & Garber, 1992; Robinson, Garber, & Hilsman, 1995; Turner & Cole, 1994) samples. However,

relatively little research has examined the factors that lead to the development of such negative cognitive styles. If depressogenic inferential styles serve as vulnerability factors to depression, then it becomes important to understand the developmental origins of these cognitive styles. Such an understanding may lead to the development of early interventions to prevent the initial onset or future recurrences of depression.

Theoretical Origins of the Depressogenic Inferential Styles: The Modeling Hypothesis

To date, several theories have been proposed to explain the origins of negative cognitive styles. One theory is that children acquire depressogenic inferential styles in part by observing and modeling the inferential styles of significant others, such as their parents (Abramson et al., 1999; Alloy et al., 1999; Garber & Flynn, 1998; Haines, Metalsky, Cardamone, & Joiner, 1999). Most studies have attempted to test this hypothesis by examining the covariation between parents' and children's cognitive styles. The results of such studies have, however, been mixed. On the one hand, several studies have found support for the modeling hypothesis. For example, in a sample of college students and their parents, Alloy et al. (2001) found that the mothers of students with pessimistic inferential styles had more negative inferential styles themselves than did the mothers of optimistic students, even after controlling for mothers' levels of depression. No differences were obtained, however, for fathers' cognitive styles. At the same time, however, other studies have failed to provide support for the modeling hypothesis. For example, in a sample of 240 sixth-grade children and their mothers, Garber and Flynn (2001) found no association between mothers' and children's general attributional styles. Thus, results from studies examining the modeling hypothesis (with respect to the similarity of parents' and children's inferential styles) have been mixed.

Theoretical Origins of the Depressogenic Inferential Styles: The Feedback Hypothesis

A second theory that has been proposed to explain the origins of pessimistic inferential styles is that children model the feedback that parents communicate to them about the meaning of negative events in their children's lives. In other words, rather than modeling parents' own inferential styles, children model the inferential feedback communicated to them about events in their own lives. Most studies have tested this feedback hypothesis by examining whether parents' typical inferential communications to their children are associated with their offspring's cognitive styles. The few studies that have examined the feedback hypothesis have found consistent support (e.g., Alloy et al., 2001; Dweck, Davidson, Nelson, & Enna, 1978; Fincham & Cain,

1986; Garber & Flynn, 2001; Turk & Bry, 1992). For example, in a recent study, Alloy et al. (2001) found that the parents of students with pessimistic inferential styles communicated more negative feedback about the causes and consequences of stressful events in their child's life than did the parents of optimistic students. Moreover, they found that parents' pessimistic inferential feedback predicted the onset of depressive episodes in their child's life during a 2.5-year prospective follow-up, and this relationship was partially mediated by the students' pessimistic inferential styles. In addition, although they did not find an association between mothers' and children's general attributional styles, Garber and Flynn (2001) did report a significant association between mothers' and children's attributions for the same child-focused events. Garber and Flynn argued that although children may not copy what their parents say in general, they might incorporate their parents' cognitions regarding things that are personally salient to the children, such as their own behavior. The strong initial support generated for the feedback hypothesis suggests that this mechanism may be a more powerful determinant of children's inferential styles than is observing and modeling parents' own inferential styles.

Theoretical Origins of the Depressogenic Inferential Styles: The Role of Negative Life Events

Another theory that has been proposed to explain the origins of cognitive vulnerability to depression is that experiencing certain types of negative events leads to the development of depressogenic inferential styles (Beck, 1967, 1987; Janoff-Bulman, 1992; Rose & Abramson, 1992). While it is normative to be exposed to disappointments, losses, failures, and other negative events over the course of development, they nonetheless can affect an individual's outlook on life, particularly if they are pervasive and severe (Janoff-Bulman, 1992). Theorists have speculated that either (1) experiencing a large number of negative events that occur in the context of multiple and likely interacting domains (e.g., a highly dysfunctional family, divorce, high levels of poverty, loss of a parent, problematic peer relationships), or (2) experiencing negative events that are chronic (e.g., parental/marital discord) and/or extremely traumatic (e.g., parental death, rape) are likely to generate personal themes of helplessness, derogation and unworthiness that become deeply encoded in self-structures (Abramson, Seligman, & Teasdale, 1978; Janoff-Bulman, 1992; Rose & Abramson, 1992). Such self-structures consequently lead to the development of depressogenic inferential styles. Thus, stressful life experiences can provide the foundation for the development of negative beliefs.

Several studies have provided support for the hypothesized relationship between the occurrence of negative life events and the development of depressogenic inferential

styles. For example, Garber and Flynn (1998) found that mothers' reports of negative life events that had occurred in their child's life during the prior year predicted significant increases in their child's depressive attributional style one year later, after controlling for baseline measures of attributional style. These results were found when the children were in seventh grade and were replicated one year later. These findings suggest that exposure to stressors predicts unfavorable changes in explanatory style towards more internal, global, and stable attributions for negative events.

Interestingly, Rose and Abramson (1992) have recently hypothesized that childhood maltreatment is likely to play a particularly important role in the development of cognitive vulnerability to depression. According to their model, when a negative life event occurs, individuals are motivated to understand its causes, meaning, and consequences, and to take action to deal with it. Rose and Abramson speculate, however, that a child's single experience of maltreatment is unlikely to contribute to the formation of a negative cognitive style because inferences about first experiences of maltreatment are more likely to be "hopefulness-inducing." In other words, the young child is more likely to attribute first instances of maltreatment to external, unstable, and specific causes, which, according to the hopelessness theory, is an inferential pattern hypothesized to maintain hope in the face of negative events. However, if the maltreatment is more chronic and pervasive, recurring over time and situations, it is much more likely to contribute to the formation of a negative cognitive style. That is, children will be more likely to make internal, stable, and global attributions for the maltreatment. Therefore, through the repetition of the negative event-specific cognitive process, a more general negative cognitive style will be formed.

Consistent with Rose and Abramson's (1992) hypothesis, several studies have provided support for the relationship between a history of childhood maltreatment and the presence of negative cognitive styles (Gibb et al., 2001; Feiring, Taska, & Lewis, 1998; Rose, Abramson, Hodulik, Halberstadt, & Leff, 1994; for an exception see Gross & Keller, 1992). For example, in a sample of children and adolescents with a documented history of sexual maltreatment, Feiring et al. (1998) found that the number of maltreatment events experienced was positively related to the negativity of the victims' cognitive styles. Moreover, cognitive style mediated the relation between number of maltreatment events and levels of depression. At the same time, however, given that the majority of past studies testing the relationship between maltreatment and the development of negative inferential styles have examined sexual, rather than emotional or physical maltreatment, it is unclear whether the relation found between childhood sexual maltreatment and adult cognitive styles is due to the unique influence of sexual maltreatment or to its overlap with either or both of the other forms of abuse (Gibb et al., 2001). Indeed, in the first study to examine the unique association of all three forms of maltreatment with negative cognitive

styles, Gibb et al. (2001) found that reported levels of childhood emotional, but not physical or sexual maltreatment were related to levels of hopelessness, as well as to episodes of nonendogenous major depression and hopelessness depression. Moreover, these relationships were partially or fully mediated by cognitive risk. These results suggest that prior findings of significant relations for physical and sexual maltreatment may have been due to the overlap or third-variable effects of childhood emotional maltreatment with the other two forms of maltreatment, given that the occurrence of emotional maltreatment was not controlled for in previous studies. If confirmed, these findings would support Rose and Abramson's (1992) hypothesis that childhood emotional maltreatment is particularly likely to lead to the development of negative cognitive styles. In emotional maltreatment, the depressive cognitions are directly supplied to the child by the abuser, therefore teaching the child to have a negative inferential style and eliminating the chance for the child to make more benign inferences.

Goals of the Current Study

The goal of the current study was to further explore the origins of cognitive vulnerability to hopelessness depression in children between the ages of 7 and 13, who were selected to be at high- and low-risk for hopelessness depression based on the presence or absence of depressogenic inferential styles. In line with preliminary research, the current study assessed whether the modeling of parents' depressogenic inferential styles, parental inferential feedback regarding events in a child's life, as well as the experience of negative events, distinguished children with depressogenic inferential styles from children without such styles. Improving upon past research, the current study examined the factors that are associated with each of the three depressogenic inferential styles proposed by the hopelessness theory, rather than just those associated with a pessimistic attributional style, in order to ascertain whether similar pathways lead to the development of the three cognitive styles. In order to test hypotheses, children and their parents completed a series of questionnaires assessing depressogenic inferential styles about causes, consequences and the self, as well as the occurrence of major negative life events, daily hassles, and physical, sexual, and emotional abuse. In line with past research, we hypothesized that the parents of children with depressogenic inferential styles would exhibit more depressogenic inferential styles themselves than would the parents of children without these styles. Second, we hypothesized that the parents of children with depressogenic inferential styles would provide more negative inferential feedback for stressful events in their child's life than would the parents of children without such styles. Last, we hypothesized that children with depressogenic inferential styles would report experiencing higher levels of negative events in the past than would children without these cognitive styles.

Method

Participants

Sixty-six children (30 girls and 36 boys) and one of their parents (59 mothers and 7 fathers) participated in the current study. Families were recruited by means of newspaper advertisements placed in several English-language newspapers in the Montreal area. Families were compensated \$90 for their participation.

The children in the current study were between the ages of 7 and 13. The mean age of the children was 10 years and 2 months. Parents' ages ranged from 28 to 51 with a mean age of 42 years and 5 months. The sample was 70.8% Caucasian, 9.2% Hispanic, 4.6% Asian, 1.5% African American, and 13.9% self-identified as another ethnicity. Of the parents, 72.7% were married or living common law, 15.2% were divorced, 10.6% were separated, and 1.5% were single. The median annual family income was in the range of \$45,000 to \$60,000. The highest levels of education completed by the parents were a high school diploma (16.9%), a community college diploma (20%), a bachelor degree (36.9%), and a graduate degree (7.8%).

Procedure

Families who responded to the advertisements were scheduled to come into the lab for an assessment. Upon arrival, parents completed a consent form and a demographics form. Children were told that their participation was voluntary and that they could choose not to participate. Research assistants then verbally administered the following questionnaires to the child alone: (1) Children's Attributional Style Questionnaire (CASQ; Seligman et al., 1984); (2) Children's Cognitive Style Questionnaire (CCSQ; Abela, 2001); (3) Social Support Scale for Children (SSSC; Harter, 1986); (4) The Children's Life Events Scale (CLES; Coddington, 1972); (5) Children's Hassles Scale (CHAS; Kanner, Feldman, Weinberger, & Ford, 1987); and (6) Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998). At the same time, the parents separately completed the following questionnaires: (1) Expanded Attributional Style Questionnaire (ASQ; Peterson & Villanova, 1988); (2) Expanded Cognitive Style Questionnaire (CSQ; Abramson & Metalsky, 1986); and (3) Parental Feedback Style Questionnaire (PFSQ; Abela, 2002a). Upon completion of the assessment, the children and their parents were debriefed.

Measures

Children's Attributional Style Questionnaire (CASQ). The CASQ contains 48 items. Each item is a hypothetical event (24 negative and 24 positive) that respondents are asked to imagine happened to them. Since the hypotheses of

the current study only involved participants' attributional styles for negative events, only the 24 negative event items were used. Respondents are presented with two possible causes of each event and are asked to choose which cause best describes the way they would think about the event if it happened to them. The two causes hold constant two attributional dimensions (internal-external, global-specific, and stable-unstable) while varying the third. The CASQ is scored by assigning a value of 1 to each internal, global, or stable response and a 0 to each external, unstable, specific response. There are eight items assessing each dimension, thus scores for each dimension range from 0-8. In line with the hopelessness theory, we used the generality composite score to measure attributional style. This score is equivalent to the sum of all global and stable responses and can range from 0-16, with higher scores indicating a more depressive attributional style.

In a study examining the reliability and validity of the CASQ in children (aged 8-13), Seligman et al. (1984) found that CASQ scores were fairly consistent over a 6-month interval, showing attributional style to be a stable individual difference among children ($r = .66$, $p < .001$). Cronbach's alpha for the negative events composite score ranged from .50 to .54 across administrations, indicating moderate internal consistency. Regarding validity, children exhibiting depressive symptoms were more likely than nondepressed children to endorse internal, global, and stable explanations for negative events. Furthermore, a pessimistic attributional style predicted depressive symptoms at the 6-month follow-up above and beyond initial levels of depression in children. Since this study, several other studies using the CASQ have obtained similar findings (i.e., Abela, 2001; Hilsman & Garber, 1995; Nolen-Hoeksema et al., 1992). In the current study, we obtained an alpha of .47 for the generality subscale, indicating moderate internal consistency.

Children's Cognitive Style Questionnaire (CCSQ). The CCSQ is a two-part questionnaire. Part one assesses the tendency to catastrophize the consequences of negative events. Part two assesses the tendency to view oneself as flawed or deficient following negative events. Each part contains 12 items, each of which is a hypothetical negative event involving the child. As with the CASQ, respondents are instructed to imagine that the event happened to them and then to choose the response that would best describe the way they would think. In part one, the child is given the following four choices: (a) This won't cause other bad things to happen to me; (b) This might cause other bad things to happen to me; (c) This will cause other bad things to happen to me; and (d) This will cause many terrible things to happen to me. Each response is assigned a value from 0-3, with higher scores indicating a greater tendency to catastrophize the consequences of negative events. Scores for the 12 items are added yielding a composite score ranging from 0-36. In part two, the child is given the following three choices: (a) This does not make me feel bad about myself; (b) This makes me feel a little bad about myself; and (c) This makes me feel very bad about myself.

Each response is assigned a value of 0-2, with higher scores indicating a greater tendency to view oneself as flawed or deficient following negative events. Scores for the 12 items are added yielding a composite score ranging from 0-24.

In a study examining the reliability and validity of the CCSQ in third and seventh grade children, Abela (2001) administered the CCSQ twice with a 7-week interval between administrations. For the inferential style about consequences subscale, Time 1 and Time 2 scores significantly correlated with each other in both third ($r = .41, p < .001$) and seventh grade students ($r = .46, p < .001$). Similarly, for the inferential style about the self subscale, Time 1 and Time 2 scores significantly correlated with each other in both third ($r = .31, p < .001$) and seventh grade students ($r = .63, p < .001$). These correlations indicate that the inferential styles about consequences and the self are relatively stable individual differences in this age group. Cronbach's alphas for the CCSQ subscales ranged from .64 to .81 across administrations, indicating moderate internal consistency. In the current study, we obtained an alpha of .80 for the inferential style about consequences subscale and .72 for the inferential style about the self subscale, indicating moderate internal consistency.

Social Support Scale for Children (SSSC). The SSSC is a 24-item questionnaire that was used to assess the child's perceived level of social support. The SSSC contains four subscales, each with six items pertaining to the assessment of perceived levels of social support from parents (e.g., my parents really understand me), teachers (e.g., I have a teacher who cares if I feel bad), classmates (e.g., my classmates pay attention to what I say), and friends (e.g., I have a close friend I can tell my problems to). The child is asked to indicate how true each of the statements is for him or her by choosing from among three possible answers (i.e., not true for me, sort of true for me, really true for me). Each response is scored on a scale from 0 to 2. Scores on each subscale range from 0 to 12. A summary score is created by summing scores across all four subscales of the SSSC. Total social support scores range from 0 to 48, with higher scores indicating higher levels of perceived social support. Previous research has indicated that the SSSC exhibits adequate levels of reliability and validity for use in clinical research (Harter, 1986). In the current study, we obtained an alpha of .77 for the total social support score and alphas of .69, .46, .72, and .85 for the parents, teachers, classmates, and friends subscales respectively. These alphas indicate moderate internal consistency.

The Children's Life Events Scale – Lifetime Version (CLES). The CLES consists of a list of 30 negative events that children may experience (e.g., your mother or father died; you failed a grade in school; a family member or close friend went to jail). For each item, respondents are asked whether or not they have ever experienced that event in the past. If they have, they receive a score of 1. If they have not, they receive a score of 0. Scores on the CLES range from 0-30 with higher scores indicating a greater number of lifetime stressful events.

Children's Hassles Scale (CHAS). The CHAS is a questionnaire that lists 39 hassles that children may experience (e.g., you had trouble learning something new; kids at school teased you; your schoolwork was too hard). Children are asked to rate how often each event happened to them in the past year on a scale of 1 (i.e., it has never happened) to 5 (i.e., it has happened all the time). For each item, respondents receive a score of 0 if they have never experienced the event, a score of 1 if it has happened a few times, a score of 2 if it has happened sometimes, a score of 3 if it has happened many times, or a score of 4 if it has happened all the time. Summary scores are created by summing the scores across the 39 items. Scores range from 0 to 156, with higher scores indicating a greater number and frequency of hassles experienced in the past year.

The Children's Trauma Questionnaire (CTQ). The CTQ is a 27-item questionnaire that examines children's past histories of emotional, physical and sexual abuse, as well emotional and physical neglect. Each of the 27 statements refers to a possible occurrence in the child's life, using vocabulary that is geared towards school-age children and adolescents. The child is asked to rate how often each event has happened to them throughout their lifetime on a scale of 1 (i.e., it has never happened) to 5 (i.e., it has happened all the time). For each item, respondents receive a score of 0 if they have never experienced the event, a score of 1 if it has happened a few times, a score of 2 if it has happened sometimes, a score of 3 if it has happened many times, or a score of 4 if it has happened all the time. In the current study we utilized the following subscales, each of which contains five items: emotional abuse (e.g., people in your family called you things like "stupid," "lazy," or "ugly"), physical abuse (e.g., people in your family hit you so hard that you had bruises or marks), and sexual abuse (e.g., someone tried to touch you in a way that made you feel bad). Scores on each subscale range from 0 to 20, with higher scores indicating greater levels of abuse experienced by the child.

Expanded Attributional Style Questionnaire (EASQ). The EASQ consists of a total of 24 hypothetical negative events. Twelve of the events are of an interpersonal nature (e.g., you and your family have a serious argument). The other 12 events are of an achievement nature (e.g., you have been looking for a job unsuccessfully for some time). Subjects are asked to write down one major cause of each event. They are then asked to rate the cause on a 1-7 scale for internality, globality, and stability. The higher the scores are on these dimensions, the more internal, global, and stable the attributional style. Consistent with the hopelessness theory (i.e., Abramson et al., 1989), we used the generality subscale (average of globality and stability; EASQ-GENERALITY) to test our predictions. Scores were averaged across the 24 negative life events, yielding one score ranging from 1 to 7, with higher scores corresponding to more depressogenic attributional styles. In the current study, we obtained an alpha of .85, indicating high internal consistency.

HOPELESSNESS THEORY, ORIGINS OF COGNITIVE VULNERABILITY

Expanded Cognitive Style Questionnaire (CSQ). The CSQ assesses cognitive styles about consequences and the self. To assess the cognitive style about consequences, subjects are asked the following question for each of the 12 negative life events in the EASQ (Peterson & Villanova, 1988): “How likely is it that the [negative event] will lead to other negative things happening to you?” They are asked to respond on a 1-7 scale, with 1 meaning “It is not at all likely that the [negative event] will lead to other negative things happening to me” and 7 meaning “It is extremely likely that the [negative event] will lead to other negative things happening to me.” To assess the cognitive style about the self, participants are asked the following question for each of the 12 negative life events in the EASQ (Peterson & Villanova, 1988): “To what degree does the [negative event] mean that you are flawed in some way?” Participants are asked to respond on a 1-7 scale, with 1 meaning “The [negative event] definitely does not mean I am flawed in some way” and 7 meaning “The [negative event] definitely does mean I am flawed in some way.” Scores were averaged across the 12 negative life events, yielding subscale scores for consequences and the self. Scores on each subscale can range from 1 to 7, with higher scores indicating more depressogenic cognitive styles. In the current study, we obtained alphas of .87 and .90 for the inferential styles about consequences and the self subscales, indicating high internal consistency.

The Parental Feedback Style Questionnaire (PFSQ). The PFSQ is a self-report questionnaire that assesses parental inferential styles about the self, consequences, and causes for events in their child’s life. It consists of a total of 12 hypothetical negative life events. The parents are asked to imagine that each event happened to their child and then to choose the response that would best describe the way they would think in that particular situation (e.g., your child gets into a fight with another kid). To assess parental inferential feedback styles about the causes of negative events in their child’s life, parents are asked to write down one major cause of each event. They are then asked to rate the cause on a 1-7 scale for internality, globality, and stability. The higher the scores are on these dimensions, the more internal, global and stable the attributional feedback style. Consistent with the hopelessness theory (i.e., Abramson et al., 1989), we used the generality subscale (average of globality and stability; PFSQ-GENERALITY) to test our predictions. Scores were averaged across the 12 negative life events, yielding one score ranging from 1 to 7, with higher scores corresponding to more depressogenic attributional feedback styles. In the current study, we obtained an alpha of .79, indicating moderate internal consistency.

In order to assess the cognitive feedback style about consequences, parents are asked the following question for each of the 12 negative life events: “How likely is it that the [negative event] will lead to other negative things happening to your child?” They are asked to respond on a 1-7 scale, with 1 meaning “It is not at all likely that the [negative event] will lead to other negative things happening to

them” and 7 meaning “It is extremely likely that the [negative event] will lead to other negative things happening to them.” Scores were averaged across the 12 negative life events, yielding one score ranging from 1 to 7, with higher scores corresponding to more depressogenic feedback about the consequences of negative events in their child’s life. In the current study, we obtained an alpha of .89, indicating high internal consistency. To assess parents’ cognitive feedback style about the self for negative life events in the child’s life, parents are asked the following question for each of the 12 negative life events: “To what degree does the [negative event] mean that your child is flawed in some way?” Participants are asked to respond on a 1-7 scale, with 1 meaning “The [negative event] definitely does not mean that they are flawed in some way” and 7 meaning “The [negative event] definitely does mean they are flawed in some way.” Scores were averaged across the 12 negative life events, yielding one score ranging from 1 to 7, with higher scores corresponding with more parental pessimistic feedback about the “self” implications of negative events in the child’s life. In the current study, we obtained an alpha of .92, indicating high internal consistency.

Results

Overview of Statistical Analyses

T-tests were conducted in order to determine whether children with depressogenic inferential styles differed significantly from children with optimistic styles on the basis of parental inferential styles, parental inferential feedback for children’s stressful events, and past experiences with negative life events. In order to test hypotheses, we identified children who exhibited optimistic and pessimistic levels of each of the three inferential styles. For each of the inferential styles, children who scored greater than one standard deviation above the mean on the measure of interest were considered to have a pessimistic inferential style, whereas those who scored less than one standard deviation below the mean were classified as having an optimistic inferential style. Thus, the same child could be classified as having one or more pessimistic and/or optimistic inferential styles.

Results indicated that 9 out of 66 children had a pessimistic inferential style about causes (i.e., scored more than one standard deviation above the mean on the generality composite index of the CASQ), and 9 out of the remaining 57 children had an optimistic inferential style about causes (i.e., scored less than one standard deviation below the mean on the generality composite index of the CASQ). Ten out of 66 children were identified as having a pessimistic inferential style about consequences (i.e., scored more than one standard deviation above the mean on the consequences subscale of the CCSQ), whereas 6 of the remaining 56 children were identified as having an optimistic inferential style about consequences (i.e., scored less than one standard de-

viation below the mean on the consequences subscale of the CCSQ). Finally, 12 out of 66 children were identified as having a pessimistic inferential style about the self (i.e., scored more than one standard deviation above the mean on the self subscale of the CCSQ), and 12 of the remaining 54 children had an optimistic inferential style about the self (i.e., scored less than one standard deviation below the mean on the self subscale of the CCSQ).

Attributional Style

Results pertaining to the inferential style about causes are presented in Table 1. In support of our hypotheses, results indicated that children with a pessimistic inferential style about causes reported lower levels of social support ($t(16) = 2.21, p < .05$) than children with an optimistic inferential style about causes. Exploratory analyses of the subscales of the SSSC revealed that pessimistic children reported lower levels of support from friends ($t(16) = 2.07, p < .06$) and classmates ($t(16) = 2.56, p < .06$) but not from parents ($t(16) = 1.10, ns$) and teachers ($t(16) = 1.73, ns$).

Analyses also revealed a nonsignificant trend in which children with a pessimistic attributional style reported experiencing a greater number of hassles in the past year than children with an optimistic inferential style about causes ($t(16) = 2.02, p < .07$).

At the same time, contrary to hypotheses, the parents of children with a pessimistic attributional style did not possess more depressogenic inferential styles about causes than did the parents of children with an optimistic attributional style ($t(16) = .667, ns$). In addition, children with a pessimistic inferential style about causes did not receive more negative parental inferential feedback about the causes of negative events in the their child's life than did children with an optimistic attributional style ($t(16) = 1.16, ns$). Last, contrary to our hypothesis, children with a pessimistic attributional style did not report experiencing more negative life events ($t(16) = .798, ns$), emotional abuse ($t(16) = .537, ns$), physical abuse ($t(16) = .161, ns$), or sexual abuse ($t(16) = .290, ns$) than did children with an optimistic attributional style.

Table 1

Means and Standard Deviations for all Measures for Children with Optimistic and Pessimistic Inferential Styles about Causes

	Optimistic inferential style about causes	Pessimistic inferential style about causes
1. ASQ-GEN	3.23 (0.93)	3.52 (0.92)
2. PFSQ-GEN	3.09 (0.96)	3.60 (0.93)
3. SSSC	43.78 (2.17)	34.44 (12.50)
4. CHAS	86.89 (13.60)	101.78 (17.49)
5. CLES	9.22 (3.27)	10.33 (2.60)
6. CTQ-EA	8.44 (2.19)	9.11 (3.02)
7. CTQ-PA	6.56 (1.13)	6.44 (1.74)
8. CTQ-SA	4.44 (2.00)	4.67 (1.12)

Note. ASQ-GEN = Expanded Attributional Style Questionnaire, Generality Subscale. PFSQ-GEN = Parental Feedback Style Questionnaire, Feedback about Causes Subscale. SSSC = Social Support Scale for Children. HASC = Hassles Scale for Children. CLES = Children's Life Events Scale. CTQ-EA = Childhood Trauma Questionnaire, Emotional Abuse Subscale. CTQ-PA = Childhood Trauma Questionnaire, Physical Abuse Subscale. CTQ-SA = Childhood Trauma Questionnaire, Sexual Abuse Subscale.

Inferential Style about Consequences

Results pertaining to the inferential style about consequences are presented in Table 2. In support of our hypotheses, results revealed that children with a pessimistic inferential style about consequences reported experiencing a greater number of major negative life events than children with an optimistic inferential style about consequences

($t(14) = 2.27, p < .05$). Analyses also revealed a nonsignificant trend in which the parents of children with a pessimistic inferential style about consequences exhibited a greater tendency to give their child pessimistic feedback about the consequences of negative events occurring in their child's life ($t(14) = 2.05, p < .07$) than parents of children with an optimistic inferential style about consequences. However, parents' own inferential styles about consequences ($t(14) =$

HOPELESSNESS THEORY, ORIGINS OF COGNITIVE VULNERABILITY

.563, *ns*) were not related to their child's inferential style about consequences.

At the same time, contrary to hypotheses, children with a pessimistic inferential style about consequences did not report experiencing lower levels of social support ($t(14) = .345$, *ns*) than children with optimistic inferential styles

about consequences. Furthermore, children with a pessimistic inferential style about consequences did not differ from optimistic children in terms of the number of hassles reported in the last year ($t(14) = .927$, *ns*), nor in terms of levels of emotional abuse ($t(14) = .516$, *ns*), physical abuse ($t(14) = .446$, *ns*), or sexual abuse ($t(14) = .677$, *ns*).

Table 2

Means and Standard Deviations for all Measures for Children with Optimistic and Pessimistic Inferential Styles about Consequences

	Optimistic inferential style about consequences	Pessimistic inferential style about consequences
1. CSQ-CONS	2.67 (0.90)	2.98 (1.15)
2. PFSQ-CONS	1.93 (0.86)	3.06 (1.22)
3. SSSC	40.00 (9.45)	38.40 (8.71)
4. CHAS	89.00 (15.61)	95.70 (13.01)
5. CLES	7.00 (2.45)	9.70 (2.21)
6. CTQ-EA	9.17 (3.55)	10.30 (4.60)
7. CTQ-PA	6.33 (1.37)	6.70 (1.70)
8. CTQ-SA	5.00 (3.10)	5.90 (2.23)

Note. CSQ-CONS = Cognitive Style Questionnaire, Inferential Style about Consequences Subscale. PFSQ-CONS = Parental Feedback Style Questionnaire, Feedback about Consequences Subscale. SSSC = Social Support Scale for Children. HASC = Hassles Scale for Children. CLES = Children's Life Events Scale. CTQ-EA = Childhood Trauma Questionnaire, Emotional Abuse Subscale. CTQ-PA = Childhood Trauma Questionnaire, Physical Abuse Subscale. CTQ-SA = Childhood Trauma Questionnaire, Sexual Abuse Subscale.

Inferential Style about the Self

Results pertaining to the inferential style about the self are presented in Table 3. In support of our hypotheses, children with a depressogenic inferential style about the self reported higher levels of emotional abuse ($t(23) = 2.11$, $p < .05$) and sexual abuse ($t(23) = 2.91$, $p < .01$) than children with an optimistic inferential style about the self. However, children with a pessimistic inferential style about the self did not report higher levels of physical abuse ($t(23) = .894$, *ns*) than children with an optimistic inferential style about the self.

At the same time, contrary to hypotheses, the parents of children with a pessimistic inferential style about the self did not themselves exhibit more pessimistic inferential

styles about the self than the parents of optimistic children ($t(23) = .099$, *ns*). In addition, the parents of children with a pessimistic inferential style about the self did not provide their children with more pessimistic feedback about the self-implications of negative events occurring in their child's life than did the parents of optimistic children ($t(23) = .951$, *ns*). Furthermore, contrary to our hypothesis, children with pessimistic inferential styles about the self did not report experiencing lower levels of social support ($t(23) = .222$, *ns*) than children with optimistic inferential styles about the self. Children with pessimistic inferential styles about the self also did not report a greater number of hassles in the past year ($t(23) = 1.70$, *ns*), or a greater number of major negative life events ($t(23) = .742$, *ns*), than children with optimistic inferential styles about the self.

Table 3
Means and Standard Deviations for all Measures for Children with Optimistic and Pessimistic Inferential Styles about the Self

	Optimistic inferential style about the self	Pessimistic inferential style about the self
1. CSQ-SELF	2.51 (0.93)	2.47 (1.17)
2. PFSQ-SELF	2.04 (1.24)	1.66 (0.61)
3. SSSC	39.92 (7.82)	39.25 (7.34)
4. CHAS	86.10 (16.84)	97.66 (17.21)
5. CLES	9.04 (3.73)	10.00 (2.59)
6. CTQ-EA	7.15 (2.61)	9.50 (2.94)
7. CTQ-PA	5.80 (1.96)	6.42 (1.62)
8. CTQ-SA	3.62 (1.71)	5.50 (1.51)

Note. CSQ-SELF = Cognitive Style Questionnaire, Inferential Style about the Self Subscale. PFSQ-SELF = Parental Feedback Style Questionnaire, Feedback about Self Implications Subscale. SSSC = Social Support Scale for Children. HASC = Hassles Scale for Children. CLES = Children's Life Events Scale. CTQ-EA = Childhood Trauma Questionnaire, Emotional Abuse Subscale. CTQ-PA = Childhood Trauma Questionnaire, Physical Abuse Subscale. CTQ-SA = Childhood Trauma Questionnaire, Sexual Abuse Subscale.

Discussion

The results of the current study indicate that different pathways lead to the development of the three pessimistic inferential styles. Specifically, the inferential style about causes was associated with non-family related chronic hassles in the past year, as well as with low levels of social support from classmates and peers. Interestingly, these are all current stressors in the child's life and all pertain to the child's peer environment. On the other hand, the inferential style about consequences was associated with the occurrence of major negative life events, as well as with the inferential feedback the children received from their parents about the consequences of such negative life events. Finally, inferential style about the self was associated with past histories of emotional and sexual abuse.

Congruence Between Current Findings and Past Research

Although the results of the current study replicate several findings in the literature examining the development of cognitive vulnerability to depression, they also contradict other findings. For example, in line with past research, the results of the current study provide support for the feedback hypothesis in that children's inferential styles about consequences were associated with the inferential feedback they received from their parents about the consequences of negative events in the child's life. Moreover, in support of recent speculations, findings from the current study suggest

that parental inferential feedback was a more powerful determinant of children's inferential style about consequences than was the parents' own inferential style about consequences. In addition, also in line with past research, the results of the current study suggest that certain types of negative life events are associated with each of the three inferential styles. That is, a pessimistic attributional style was associated with chronic hassles and low levels of perceived social support. An inferential style about consequences was related to the experience of major negative life events during childhood. Finally, the inferential style about the self was associated with the occurrence of sexual and emotional abuse. Thus, the results of the current study are congruent with past research in that they suggest that both the modeling of inferential feedback and the experience of negative events play a role in the development of cognitive vulnerability to hopelessness depression.

At the same time, however, the results of the current study are inconsistent with other findings of past research in that the pathways hypothesized to lead to the development of cognitive vulnerability to hopelessness depression were each associated with only one of the three inferential styles, rather than predicting negative cognitive styles in general. Thus, whereas past research has suggested that similar pathways lead to the development of all three inferential styles, the results of the current study suggest that distinct pathways lead to the development of the pessimistic inferential styles about causes, consequences, and the self.

Limitations of Past Research: The Use of Adult

Samples

In order to integrate the results of the current study with those of past research, it is important to acknowledge limitations of past research that could account for the apparent inconsistencies between the current and past findings. In particular, a substantial number of studies testing theories of the origins of cognitive vulnerability to hopelessness depression have utilized adult samples (e.g., Alloy et al., 2001; Gibb et al., 2001; Rose et al., 1994). These studies have asked adults to retrospectively recall the occurrence of abuse or negative life events, or have examined the association between the inferential styles of these adults and their parents. The use of adult samples in this context is problematic given that the relationships among the three inferential styles proposed by the hopelessness theory appear to differ in child and adult populations. That is, although research examining the depressogenic inferential styles in adult populations has found these styles to be empirically indistinguishable (e.g., Abela, 2002b; Abela & Seligman, 2000; Abela, Brozina, & Seligman, 2002; Metalsky & Joiner, 1992), research with child populations has not. For example, studies using adult populations consistently report high degrees of interrelatedness among these three styles, whereas studies using child populations often find them to be virtually independent of one another (Abela, 2001; Abela & Sarin, 2002). In addition, although research using adult populations has failed to find age or gender differences with respect to the three inferential styles, child research has suggested that the three styles may emerge as vulnerability factors to depression at various stages of development in different children (Abela, 2001). Furthermore, in a study by Abela and Sarin (2002), children's propensities towards depressogenic thinking were found to vary tremendously depending on which inferential style was examined. Specifically, 20.7% of children were classified as extremely pessimistic on one inferential style but extremely optimistic on at least one other. Thus, it appears that in contrast to adults, a significant portion of children exhibit a dramatic range in their styles of thinking such that their inferential styles about causes, consequences, and the self are almost completely independent of each other.

Consequently, when researchers attempt to examine theories of cognitive vulnerability to depression using adult populations, they run the risk of two potential pitfalls. First, they are likely to limit their ability to identify the specificity of the etiological pathways leading to the development of the three distinct inferential styles. Given that the inferential styles are highly intercorrelated with one another in adults, any developmental pathway elucidated by studies employing adult populations will appear to be an important determinant of the development of all three styles, when in reality, this factor may have only been crucial to the development of one of the styles. Second, in light of the highly indistinguishable nature of the pessimistic inferential styles in adults, the construct of interest in adult populations becomes broad pessimism rather than pessimism of specific

types. When examining broad pessimism, vulnerability factors that are strongly associated with only one type of pessimism become much less strongly associated with pessimism in general. Consequently, important effects may become muted or washed out, and hence remain undetected.

Methodological Inconsistencies Between Past Research and the Current Study

At the same time, the use of adult samples cannot entirely account for discrepancies between the current findings and those of past studies, as the findings of the current study are also incongruent with past studies that have utilized child samples. Specifically, in contrast to the current findings, past studies using child samples have found support for the role of parental inferential feedback (e.g., Fincham & Cain, 1986; Garber & Flynn, 2001), the occurrence of negative events (e.g., Garber & Flynn, 1998) and sexual abuse (e.g., Feiring et al., 1998) in the development of a pessimistic attributional style. Several factors may account for these discrepancies. First, measurement differences between studies are likely to account for inconsistencies in findings. For example, although the majority of studies have utilized the CASQ to assess attributional style, other studies have used alternative measures such as the Perceived Control Scale (Rudolph, Kurlakowsky, & Conley, 2001). In addition, in line with the hopelessness theory, the current study used the generality composite score (i.e., global-specific and stable-unstable) of the CASQ to assess attributional style for negative events. In contrast, the majority of past research has utilized the CASQ composite scores that involve all three subscales of the CASQ (i.e., internal-external, global-specific, and stable-unstable), as well as items from the CASQ for both positive and negative events. Last, in order to assess parental inferential feedback, the current study used the PFSQ. However, past research examining this hypothesis has used various other measures such as the CASQ-P (Garber & Flynn, 2001).

A second factor that may account for inconsistencies in results across child studies is the use of different age groups. That is, while the current study employed a sample of children between the ages of seven and thirteen, other studies have utilized samples of pre-adolescents (e.g., Garber & Flynn, 2001; Rudolph et al., 2001). In addition, the few studies that have utilized samples of younger children focused on a very narrow age range (Fincham & Cain, 1986; Seligman & Peterson, 1986; for an exception see Kaslow, Rehm, Pollack, & Siegel, 1988).

Finally, a third factor that may account for inconsistencies in findings is variation in study designs. That is, both cross-sectional (e.g., Fincham & Cain, 1986) and longitudinal designs (e.g., Nolen-Hoeksema et al., 1992) have been employed to test theories of the origins of cognitive vulnerability to depression. However, these designs may detect different developmental pathways. Longitudinal designs, in which the dependent variable is change in depressogenic

inferential styles during the course of the study, will detect factors that are responsible for change in these styles during the participant's current developmental period. In contrast, cross-sectional studies, such as the present one, will detect the factors that played the greatest role in the past in distinguishing optimists and pessimists, regardless of when these factors occurred in the child's developmental trajectory. Thus, future research with children should continue to examine the development all three inferential styles using similar measures of constructs, samples that encompass a wide age range, as well as both longitudinal and cross-sectional designs.

Limitations of the Current Study

Several limitations of the current study should be noted. First, the current study utilized a cross-sectional design. As such, we were only able to demonstrate correlations between hypothesized vulnerability factors to hopelessness depression and the three pessimistic inferential styles, but could not establish causation. Future research should continue to examine these hypotheses using both longitudinal and cross-sectional designs. Second, the current study used a small sample size, which may have limited our statistical power to detect significant relationships. Third, self-report measures were used to assess all constructs. Such a format is inherently prone to informant bias. Thus, future researchers examining these hypotheses should utilize more sophisticated methods of analysis such as interviewing procedures, observational techniques and peer ratings. In addition, although the CASQ exhibits adequate levels of internal consistency for use in empirical research, a measure of attributional style with a higher level of internal consistency is needed in order to rule out the possibility that inconsistent findings across studies are the result of the poor psychometric properties of this measure. Fifth, the current study assessed a few main theories of the development of cognitive vulnerability to hopelessness depression. Specifically, the current study examined whether parental inferential styles, parental inferential feedback and the occurrence of negative events were associated with the pessimistic inferential styles about causes, consequences, and the self. Future research should continue to examine these theories, as well as additional theories of vulnerability to depression, such as the role of past episodes of childhood depression, attachment styles between children and caregivers, and communication patterns (i.e., expressed emotion), in the development of pessimistic inferential styles. Future research should also examine the interaction among the etiological pathways addressed by such developmental theories.

Conclusion

In conclusion, the results of the current study suggest that both the modeling of inferential feedback and the expe-

rience of negative events play a role in the development of cognitive vulnerability to hopelessness depression. In addition, results reveal that different pathways are likely to lead to the development of depressogenic inferential styles about the self, consequences, and causes. Future research using longitudinal designs, larger sample sizes, and multiple methods of assessment is likely to help us gain an even deeper understanding of the factors that play a role in the development of cognitive vulnerability to hopelessness depression. Such research is also likely to benefit from examining a broader range of theories of the origins of depressogenic inferential styles than those examined in the current study. Discovering the factors that lead to the development of depressogenic inferential styles provides clinicians with a tool for identifying children at risk for developing cognitive vulnerability to depression. Identification of such children is essential so that the development of such vulnerability factors can be prevented and subsequent bouts with depression avoided.

References

- Abela, J. R. Z. (2001). The hopelessness theory of depression: A test of the diathesis-stress and causal mediation components in third and seventh grade children. *Journal of Abnormal Child Psychology*, *29*, 241-254.
- Abela, J. R. Z. (2002a). *The Parental Feedback Style Questionnaire*. Unpublished manuscript. McGill University, Montreal, Quebec.
- Abela, J. R. Z. (2002b). Depressive mood reactions to failure in the achievement domain: A test of the integration of the hopelessness and self-esteem theories of depression. *Cognitive Therapy and Research*, *26*, 531-552.
- Abela, J. R. Z., & Sarin, S. (2002). Cognitive vulnerability to hopelessness depression: A chain is only as strong as its weakest link. *Cognitive Therapy and Research*, *26*, 811-829.
- Abela, J. R. Z., & Seligman, M. E. P. (2000). The hopelessness theory of depression: A test of the diathesis-stress component in the interpersonal and achievement domains. *Cognitive Therapy and Research*, *24*, 361-378.
- Abela, J. R. Z., Brozina, K., & Seligman, M. E. P. (2002). Priming of cognitive vulnerabilities to depression: A test of the diathesis-stress component of the hopelessness theory of depression. *British Journal of Clinical Psychology*. Manuscript submitted for publication.
- Abramson, L. Y., & Metalsky, G. I. (1986). The Cognitive Style Questionnaire: Measurement of negative cognitive styles about self and consequences. Unpublished manuscript.
- Abramson, L. Y., Metalsky, G. I., & Alloy, L. B. (1989). Hopelessness depression: A theory based subtype of depression. *Psychological Review*, *96*, 358-372.
- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, *87*, 49-74.

HOPELESSNESS THEORY, ORIGINS OF COGNITIVE VULNERABILITY

- Abramson, L. Y., Alloy, L. B., Hogan, M. E., Whitehouse, W. G., Donovan, P., Rose, D. T., Panzarella, C., & Raniere, D. (1999). Cognitive vulnerability to depression: Theory and evidence. *Journal of Cognitive Psychotherapy: An International Quarterly*, *13*, 5-20.
- Alloy, L. B., & Clements, C. M. (1998). Hopelessness theory of depression: Tests of the symptom component. *Cognitive Therapy and Research*, *22*, 303-335.
- Alloy, L. B., Abramson, L. Y., Whitehouse, W. G., Hogan, M. E., Tashman, N. A., Steinberg, D. L., Rose, D. T., & Donovan, P. (1999). Depressogenic cognitive styles: Predictive validity, information processing and personality characteristics, and developmental origins. *Behavior Research and Therapy*, *37*, 503-531.
- Alloy, L. B., Whitehouse, W. G., Robinson, M. S., Abramson, L. Y., Hogan, M. E., Rose, D. T., & Kim, R. S. (2000). The Temple-Wisconsin Cognitive Vulnerability to Depression Project: Lifetime history of axis I psychopathology in individuals at high and low cognitive risk for depression. *Journal of Abnormal Psychology*, *109*, 403-418.
- Alloy, L. B., Abramson, L. Y., Tashman, N. A., Berrebbi, D. S., Hogan, M. E., Whitehouse, W. G., Crossfield, A.G. & Morocco, A. (2001). Developmental Origins of Cognitive Vulnerability to Depression: Parenting, Cognitive, and Inferential Feedback Styles of the Parents of Individuals at High and Low Cognitive Risk for Depression. *Cognitive Therapy and Research*, *25*, 397-423.
- Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Harper & Row.
- Beck, A. T. (1987). Cognitive models of depression. *Journal of Cognitive Psychotherapy: An International Quarterly*, *1*, 5-37.
- Bernstein, D. P., & Fink, L. (1998). *Childhood Trauma Questionnaire: A Retrospective Self-Report Manual*. The Psychological Corporation.
- Coddington, R. D. (1972). The significance of life events as the etiologic factors in the diseases of children, II: A study of a normal population. *Journal of Psychosomatic Research*, *16*, 205-213.
- Cole, D. A. & Turner, J. E. Jr. (1993). Models of cognitive mediation and moderation in child depression. *Journal of Abnormal Psychology*, *102*, 271-281.
- Dweck, C. S., Davidson, W., Nelson, S., & Enna, B. (1978). Sex differences in learned helplessness: II. The contingencies of evaluative feedback in the classroom and III. An experimental analysis. *Developmental Psychology*, *14*, 268-276
- Dixon, J. F. & Ahrens, A. H. (1992). Stress and attributional styles as predictors of self-reported depression in children. *Cognitive Therapy and Research*, *16*, 623-634.
- Feiring, C., Taska, L., & Lewis, M. (1998). The role of shame and attributional style in children's and adolescents' adaptation to sexual abuse. *Childhood Maltreatment*, *3*, 129-142.
- Fincham, F. D., & Cain, K. M. (1986). Learned helplessness in humans: A developmental analysis. *Developmental Review*, *6*, 301-333.
- Fleming, J. E., Boyle, M. H., & Offord, D. R. (1993). The outcome of adolescent depression in the Ontario Child Health Study follow-up. *Journal of the American Academy of Child and Adolescent Psychiatry*, *32*, 28-33.
- Garber, J., & Flynn, C. (1998). Origins of the depressive cognitive style. In D. Routh & R.J. DeRebeis (Eds.). *The science of clinical psychology: Evidence of a century's progress* (pp. 53-93). Washington, DC: American Psychological Association.
- Garber, J., & Flynn, C. (2001). Predictors of Depressive Cognitions in Young Adolescents. *Cognitive Therapy and Research*, *25*, 353-376.
- Gibb, B. E., Alloy, L. B., Abramson, L. Y., Rose, D. T., Whitehouse, W. G., Donovan, P., Hogan, M. E., Cronholm, J., & Tierney, S. (2001). History of childhood maltreatment, negative cognitive styles, and episodes of depression in adulthood. *Cognitive Therapy and Research*, *25*, 425-446.
- Gross, A. B. & Keller, H. R. (1992). Long-term consequences on childhood physical and psychological maltreatment. *Aggressive Behavior*, *18*, 171-185.
- Haines, B. A., Metalsky, G. I., Cardamone, A. L., & Joiner, T. (1999). Interpersonal and cognitive pathways into the origins of attributional style: A developmental perspective. In T. Joiner & J. C. Coyne (Eds.), *The interactional nature of depression* (pp. 65-92). Washington, DC: American Psychological Association.
- Harrington, R., Rutter, M., & Frombonne, E. (1996). Developmental pathways in depression: Multiple meanings, antecedents, and endpoints. *Development and Psychopathology*, *8*, 601-616.
- Harter, S. (1986). Manual for the Social Support Scale for Children. Unpublished manuscript.
- Hilsman, R., & Garber, J. (1995). A test of the cognitive diathesis-stress model of depression in children: Academic stressors, attributional style, perceived competence, and control. *Journal of Personality and Social Psychology*, *69*, 370-380.
- Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York: Free Press.
- Kandel, D. B., & Davis, M. (1986). Adult sequelae of adolescent depressive symptoms. *Archives of General Psychiatry*, *43*, 255-262.
- Kanner, A. D., Feldman, S. S., Weinberger, D. A., & Ford, M. E. (1987). Uplifts, hassles, and adaptational outcomes in early adolescents. *Journal of Early Adolescence*, *7*, 371-394.
- Kaslow, N. J., Rehm, L. P., Pollack, S. L., & Siegel, A. W. (1988). Attributional style and self-control behavior in

- depressed and nondepressed children and their parents. *Journal of Abnormal Child Psychology*, 16, 163-175.
- Lewinsohn, P., Rohde, P., Seeley, J., & Fisher, S. (1993). Age-cohort changes in the lifetime occurrence of depression and other mental disorders. *Journal of Abnormal Psychology*, 102, 110-120.
- Metalsky, G. I., Halberstadt, L. J., & Abramson, L. Y. (1987). Vulnerability to depressive mood reactions: Toward a more powerful test of the diathesis-stress and causal mediation components of the reformulated theory of depression. *Journal of Personality and Social Psychology*, 52, 386-393.
- Metalsky, G. I., & Joiner, T. E. Jr. (1992). Vulnerability to depressive symptomatology: A prospective test of the diathesis-stress and causal mediation components of the reformulated theory of depression. *Journal of Personality and Social Psychology*, 63, 667-675.
- Metalsky, G. I., Joiner, T. E., Jr., Hardin, T. S. & Abramson, L. Y. (1993). Depressive reactions to failure in a naturalistic setting: A test of the hopelessness and self-esteem theories of depression. *Journal of Abnormal Psychology*, 102, 101-109.
- Nolen-Hoeksema, S., Girgus, J. S., & Seligman, M. E. P. (1992). Predictors and consequences of childhood depressive symptoms: A five-year longitudinal study. *Journal of Abnormal Psychology*, 101, 405-422.
- Panak, W. F., & Garber, J. (1992). Role of aggression, rejection, and attributions in the prediction of depression in children. *Development and Psychopathology*, 1992, 145-165.
- Peterson, C., & Villanova, P. (1988). An Expanded Attributional Style Questionnaire. *Journal of Abnormal Psychology*, 97, 87-89.
- Rao, U., Ryan, N. D., Birmaher, B., Dahl, R. E., Williamson, D. E., Kaufman, J., Rao, R., & Nelson, G. (1995). Clinical outcome in adulthood. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 566-578.
- Reich, T., Van Eerdewegh, P., Rice, J., Mullaney, J., Klerman, G., & Endicott, J. (1987). The family transmission of primary depressive disorder. *Journal of Psychiatric Research*, 21, 613-624.
- Robinson, N. S., Garber, J., & Hilsman, R. (1995). Cognitions and stress: Direct and moderating effects of depressive versus externalizing symptoms during the junior high school transition. *Journal of Abnormal Psychology*, 104, 453-463.
- Rose, D. T., & Abramson, L. Y. (1992). Developmental predictors of depressive cognitive style: Research and theory. In D. Cicchetti & S. L. Toth (Eds.), *Rochester symposium on developmental psychopathology* (Vol. 4, pp. 323-349). Hillsdale, NJ: Erlbaum.
- Rose, D. T., Abramson, L. Y., Hodulik, C. J., Halberstadt, L., & Leff, G. (1994). Heterogeneity of cognitive style among depressed inpatients. *Journal of Abnormal Psychology*, 103, 419-429.
- Rudolph, K. D., Kurlakowsky, K. D., & Conley, C. S. (2001). Developmental and Social-Contextual Origins of Depressive Control-Related Beliefs and Behavior. *Cognitive Therapy and Research*, 25, 447-475.
- Schwartz, J. A. J., Gladstone, T. R. G., & Kaslow, N. (1998). Depressive disorders. In T. H. Ollendick & M. Herson (Eds.), *Handbook of child psychopathology* (3rd ed., pp. 269-289). New York: Plenum.
- Seligman, M. E. P., & Peterson, C. (1986). A learned helplessness perspective on childhood depression: Theory and research. In M. Rutter, C. E. Izard & P. B. Read (Eds.). *Depression in young people: Developmental and clinical perspectives* (pp. 223-249). New York: Guilford Press.
- Seligman, M. E. P., Peterson, C., Kaslow, N. J., Tenenbaum, R. L., Alloy, L. B., & Abramson, L. Y. (1984). Attributional style and depressive symptoms among children. *Journal of Abnormal Psychology*, 93, 235-241.
- Turk, E. & Bry, B. (1992). Adolescents' and parents' explanatory styles and parents' causal explanations about their adolescents. *Cognitive Therapy and Research*, 16, 349-357.
- Turner, J. E., & Cole, D. A. (1994). Developmental differences in cognitive diatheses in child depression. *Journal of Abnormal Child Psychology*, 103, 15-32.