

Gender as a longitudinal moderator of the relationship between attributional style and depressive symptoms over a 1-year period in preadolescent children

Radhika Reddy, MA
Rachel Wolfe, PhD
Carla Sharp, PhD

Depressive symptoms and attributional style were assessed in a sample of 7- to 11-year-old children at two time points. Findings revealed that boys and girls did not differ in their level of depressive symptoms over 1 year. At baseline, boys were more likely than girls to make stable attributions for negative events. Boys made fewer stable attributions for positive events than did girls. Moderational analyses suggested that attributional style more strongly predicted changes in the number of depressive symptoms 1 year later in boys when compared to girls. Findings emphasize the need to address vulnerability factors in preadolescent boys that may put them at risk for the development of later depressive symptoms. (Bulletin of the Menninger Clinic, 77[3], 233–249)

Elementary school-aged children are in the midst of a number of psychosocial changes as they progress through elementary school and prepare for the transition into middle school. Children who develop mental health difficulties such as depression are at risk for more severe symptoms to develop over time and subsequently more problematic trajectories as they advance into their adoles-

Ms. Reddy and Dr. Sharp are with the University of Houston and The Menninger Clinic. Dr. Wolfe is with the Baylor College of Medicine. Correspondence may be sent to Dr. Sharp at the Department of Psychology, 126 Heyne Building, University of Houston, Houston, TX, 77204; e-mail: csharp2@uh.edu. (Copyright © 2013 The Menninger Foundation)

cent and young adult years (Harrington, Fudge, Rutter, Pickles, & Hill, 1990). Early onset depression is associated with higher risk for both depression during adulthood (Lewinsohn, Rohde, Klein, & Seeley, 1999) and other mental health-related difficulties (Rohde, Lewinsohn, & Seeley, 1991). For example, early onset depression is associated with significant physical, emotional, and behavioral problems in social, family, school, and other contexts (Goodyer & Sharp, 2005). Early identification and treatment of adolescent depression is therefore essential. Moreover, understanding the etiological pathways to the development of such symptoms in this young age cohort will likely provide insights into intervention and prevention options.

Research has identified depressogenic attributional style to be one of the major risk factors for developing depression over time, even when baseline depression is accounted for (Gladstone & Kaslow, 1995; Seligman et al., 1984). Depressogenic attributional style could therefore serve as an important early cognitive marker for the development of depression. Attributional style research is derived from the hopelessness theory of depression and the theory of learned helplessness (Abramson, Metalsky, & Alloy, 1989; Abramson, Seligman, & Teasdale, 1978), which posit that cognitively vulnerable individuals who experience a negative life event are at risk for experiencing a sense of hopelessness that can lead to symptoms of depression. Attributional styles are explanatory styles used by individuals to interpret events. Such styles are defined across three domains: internal/external, stable/unstable, and global/specific. Individuals who experience a negative event and perceive it as internal, stable, and global in nature indicate that they blame themselves for the negative event, view the negative event as occurring consistently over time, and view the event as generalizable across multiple situations (Abramson et al., 1978; Thompson, Kaslow, Weiss, & Nolen-Hoeksema, 1998). In contrast, individuals who experience a negative event and perceive it as external, unstable, and specific believe that external sources are responsible for the event (e.g., bad luck), that the event is likely a one-time occurrence, and that the outcome is particular to that event (Abramson et al., 1978; Thompson et al., 1998). Individuals who interpret negative events as internal,

stable, and global are at risk for developing depressive symptoms in response to negative events. Similarly, individuals who interpret positive events as external, unstable, and specific are also at risk for depressive symptoms.

Longitudinal research suggests that the nature of attributional style changes across childhood and adolescence (Cole et al., 2008), with stability or traitlike aspects of the style increasing with age. Specifically, stable negative attribution styles do not manifest until about age 14 or 15, at which point attributional style begins to interact with a child's negative life events to predict depression (Cole et al., 2008). That said, attributional style is still very much present in younger children. It may, however, be experienced differently (Cole et al., 2008). For example, younger children may be less able to understand that with practice or effort, certain abilities may change over time (Blumenfeld, Pintrich, & Hamilton, 1986) and may be more likely to have simplistic understandings of the consistency of certain traits over time (Rholes & Ruble, 1984).

Few studies have examined the question of whether depressogenic inferential styles about consequences and the self (attributional style) serve as vulnerability factors for the development of depression in youth, and the results of the few studies that have examined attributional style in a longitudinal design are mixed (Abela & Hankin, 2008). Similarly, while the literature seems to support the developmental course of attributional style and its relationship to depressive symptoms (Nolen-Hoeksema, Girgus, & Seligman, 1991), little is known about the role of gender in these predictions. What we do know is that gender differences in overall rates of depression emerge around the age of 13 (Nolen-Hoeksema, 1990), with a greater number of females becoming depressed compared to males. However, research has also suggested that, prior to adolescence, the incidence of depression may be higher in boys than in girls, which may be explained by more maladaptive thinking patterns among the former group (Eme, 1979; Nolen-Hoeksema et al., 1991; Pearce, 1978). Regarding attributional style, the link between negative attributions and depressive symptoms has been found to be stronger in girls than in boys during adolescence (Gladstone, Kaslow, Seeley, &

Lewinsohn, 1997). While cross-sectional evidence supports the notion that attributional style may be linked to the higher rates of depressive symptoms in prepubescent boys (Nolen-Hoeksema et al., 1991), little is known about the ways in which gender specifically influences the strength and direction of the relationship between attributional style and depression in elementary school-aged children.

Longitudinal research examining gender discrepancies in elementary-aged children is needed to better understand the etiological pathways of attributional style and the experience of depressive symptoms in this age group and the ways in which gender moderates such a relationship. A better understanding of gender differences and how they relate to depressive symptoms and attributional style over time will complement the literature, adding richness to our current understanding of attributional styles during this developmental time period. Using a moderational model (Baron & Kenny, 1986), we aim in the current study to provide a more sophisticated understanding of the longitudinal relationships among gender, attributional style, and changes in depressive symptoms by examining the moderating effect of gender in the longitudinal relationships between baseline and 1-year follow-up depression. Based on prior research findings (Nolen-Hoeksema et al., 1991), we hypothesized that (1) 7- to 11-year-old boys will report higher levels of depressive symptoms than their female counterparts, (2) boys will have more stable, internal, and global attributions compared to girls, and (3) attributional style will predict changes in depressive symptoms over time when controlling for baseline depression scores, but that gender will moderate the longitudinal relationship between attributional style and depression with the predictive value of attributional style being stronger for boys than for girls.

Method

Participants

The present investigation forms part of a larger scale study of the social-cognitive and emotional processing correlates of emotional-behavior problems in community children (the Child Behav-

our Study). An unselected sample of 7- to 11-year-old children ($N = 659$) were studied for 1 year. Full details on recruitment and strategies for determining the representativeness of the sample are described elsewhere (Sharp, Croudace, Goodyer, & Amtmann, 2005; Sharp, van Goozen, & Goodyer, 2006). The ascertained sample showed no evidence of participation bias and was representative of children attending elementary schools in the Cambridgeshire Education Area (England). The mean age of the sample was 9 years, 7 months (SD 1 year, 3 months) and the mean IQ was 104 (SD 17); there were 319 boys (48%) and 340 girls (52%). The ethnic distribution in the sample was in line with U.K. regional statistics (Office of National Statistics, 1991, 2007) for eastern England (97% white, 2% Asian [Central Asia], 0.5% black, and 0.5% Oriental [e.g., Japan, China]). Using the U.K. system for determining socioeconomic status, our sample comprised the offspring of 40% wealthy achievers, 9% urban prosperous, 28% comfortably well off, 9% moderate means, and 14% hard pressed, typical for eastern England. Given that the study was focused on depression, albeit in a community sample, we nevertheless wanted to determine whether any portion of the sample would have high levels of depression. Thus, a clinical cut-off score of 29 on the Mood and Feelings Questionnaire (MFQ) as recommended by Daviss et al. (2006) was used to calculate the proportion of our sample currently experiencing a major depressive episode. When using this cutoff score, 18.67% and 6.15% of our sample were experiencing a major depressive episode at Time 1 and Time 2, respectively. These rates should be interpreted against the background that the MFQ is a screening measure and therefore associated with high levels of false positives.

Measures

Depressive symptomatology. The Mood and Feelings Questionnaire (MFQ long form; Angold et al., 1995) is a 33-item measure for youth ages 6 to 17 years used to screen for clinically significant symptoms of depressive disorders experienced during the past 2 weeks. Youth are asked to report on symptoms derived from the *DSM-IV* depressive disorder criteria that include loneliness, somat-

ic complaints, tearfulness, and worries about the future experiences using a 3-point Likert-type rating scale (i.e., true, sometimes true, not true). Excellent internal consistency has been demonstrated ($\alpha = .92$; Wood, Kroll, Moore, & Harrington, 1995). This measure was used to assess depressive symptomatology both at baseline and at 1-year follow-up.

Attributional style. The Children's Attributional Style Questionnaire-Revised (CASQ-R; Kaslow & Nolen-Hoeksema, 1991) is a 24-item self-report questionnaire measure assessing attributional style. This measure requires children to make attributions to a series of either positive or negative situations. These responses map onto scales that assess internal/external, global/specific, and stable/unstable dimensions of either positive or negative attributions. An overall composite score, determined by subtracting negative composite from positive composite, was calculated for each participant, and was the primary score used to assess attributional style in this study. Lower overall composite scores, lower positive composite scores, and higher negative composite scores are associated with a more depressive attributional style (Thompson et al., 1998). Additionally, the positive and negative composites were further broken down into subscales of negative-internal, negative-stable, negative-global, positive-internal, positive-stable, and positive-global attributions. The CASQ-R has been found to have acceptable psychometric properties, specifically with moderate internal consistency reliability, fair test-retest reliability, and good validity (Thompson et al., 1998).

Procedure

The study was approved by the local ethics board. After school principals had consented for their school to participate, invitation letters were sent home with children to obtain positive consent from parents. All measures were administered through individual or small group assessments with the children at school. At 1 year after baseline, children were asked to complete the MFQ again.

Data analytic strategy

In order to test our first two hypotheses of whether there are gender differences in attributional style or in depressive symptomatology at baseline and follow-up, independent samples *t* tests were conducted on the CASQ overall composite, MFQ baseline (Time 1), and MFQ follow-up (Time 2), respectively. In order to test our third hypothesis to determine whether attributional style predicted changes in depressive symptoms and whether gender moderated these relationships over time, we employed a conditional change approach (Wright, 2006). Thus, a regression analysis was conducted with MFQ Time 2 scores as the dependent variable, gender, CASQ overall composite, and the interaction between gender and the overall CASQ composite style as predictors, and MFQ Time 1 and age as covariates.

Results

Attrition analyses

Descriptive statistics for baseline and follow-up time points are provided in Table 1.

The response rates for child report were 98% at baseline ($n = 649$) and 66% at 1-year follow-up ($n = 439$). We used the child self-report depressive problems data to examine possible attrition effects. For these analyses, completers ($n = 436$) were defined as children who had self-report data at 1-year follow-up. Noncompleters ($n = 212$) were children whose self-report at 1 year was missing. No significant differences were found for overall CASQ-R composite scores between completers and noncompleters [$t(627) = -.11, p = .916, d = -0.009$]. Significant differences were found for baseline depressive scores. Completers ($M = 18.79$) reported significantly lower depressive symptoms compared to noncompleters ($M = 20.72$) [$t(646) = 2.40, p < .05, d = 0.189$].

Furthermore, completers and noncompleters did not differ in terms of age [$t(657) = .09, p = .926, d = 0.007$] or in terms of the number of boys and girls who completed the study versus those

Table 1. Comparison of attributional style and depressive symptomatology between genders

Variable	Male		Female		t (df)	p	Cohen's d
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)			
Age							
Time 1	9.50 (1.24)	9.52 (1.19)	9.60 (1.20)	9.58 (1.16)	-1.14 (657)	.557	-0.089
Time 2							-0.056
CASQ-R							
Overall Composite	3.60 (3.19)		4.01 (2.89)		-1.682 (627)	.093	-0.134
Negative-Internal	1.07 (0.98)		1.09 (0.98)		-.180 (633)	.857	-0.014
Negative-Stable	1.45 (1.03)		1.25 (1.01)		2.52 (636)	.012	0.200
Negative-Global	0.94 (0.91)		0.94 (0.88)		-.101 (637)	.919	-0.008
Positive-Internal	2.33 (0.92)		2.24 (0.90)		1.15 (637)	.252	0.091
Positive-Stable	2.50 (1.10)		2.77 (1.03)		-3.28 (638)	.001	-0.260
Positive-Global	2.24 (0.93)		2.27 (0.89)		-.450 (636)	.653	-0.036
MFQ							
Time 1	19.12 (9.51)		19.70 (9.70)		-.771 (646)	.441	-0.061
Time 2	14.16 (8.71)		13.68 (8.53)		.580 (437)	.562	0.055

Note. CASQ-R = Children's Attributional Style Questionnaire-Revised; MFQ = Mood and Feelings Questionnaire. Means that differ significantly statistically are bolded.

who did not [$\chi^2(1) = .007, p = .934$]. However, a significant difference was detected for IQ between completers ($M = 106.53; SD = 16.53$) and noncompleters ($M = 100.07; SD = 17.35$) [$t(650) = -4.62, p < .001, d = -0.362$]. Although this difference is statistically significant, we do not consider it clinically significant, with the mean IQ of both completers and noncompleters falling within normal range.

Gender differences in baseline and follow-up depression and attributional style

Independent sample t tests showed no significant differences between boys and girls for baseline [$t(646) = -0.77, p = .441, d = -0.061$] or follow-up depressive symptoms [$t(437) = 0.58, p = .562, d = 0.055$] as measured by the MFQ. While there was no significant difference in the overall CASQ-R composite at baseline [$t(627) = -1.68, p = .093, d = -0.134$], there were significant differences between boys and girls on the positive stable [$t(638) = -3.28, p = .001, d = -0.260$] and negative stable [$t(636) = 2.52, p = .012, d = 0.200$] subscales of the CASQ-R, with boys scoring lower on the positive stable subscale and higher on the negative stable subscale as compared to girls. This indicates that attributions made by boys for negative events tend to be more stable than for girls, and that attributions made by boys for positive events tend to be less stable. Table 1 contains the means and standard deviations of these variables by gender. Additionally, as can be seen in Table 1, males and females did not differ significantly on age [$t(657) = -1.14, p = .255, d = -0.089$].

The moderational role of gender in the longitudinal relationship between attributional style and depressive symptoms

Regression analyses were performed to test the hypothesis that gender moderates the relationship between baseline attributional style and depressive symptoms at 1-year follow-up, while controlling for baseline depression levels. To do this, the overall CASQ-R composite was entered into a regression model as a predictor of Time 2 MFQ, along with gender and the interaction between gender and the overall CASQ-R composite. Baseline depression (Time 1 MFQ) and age were entered as covariates into this mod-

Table 2. Linear regression with 1-year follow-up self-reported depressive symptoms as outcome and initial level of depressive symptoms, attributional style, gender, age, and interaction between gender and attributional style as predictors

Dependent Variable: Follow-Up Self-Report Depression (MFQ Time 2)					
	B	Std. Error	Beta	<i>t</i>	<i>p</i>
(Constant)			0.058	.96	0.338
Age	-0.030	0.026	-0.051	-1.16	0.247
Baseline MFQ	0.405	0.041	0.452	9.79	<0.001
Overall CASQ-R (Baseline)	-.562	0.172	-0.199	-3.28	0.001
Gender	-0.876	0.725	-0.102	-1.21	0.227
Gender × Overall CASQ-R	.643	0.237	0.227	2.72	0.007

Note. CASQ-R = Children's Attributional Style Questionnaire-Revised; MFQ = Mood and Feelings Questionnaire.

el. Age, CASQ-R, and Time 1 MFQ variables were centered prior to inclusion in the model. The gender variable was dummy-coded such that males were coded as "0" and females were coded as "1." This overall model was statistically significant, $F(5, 419) = 26.94$, $p < .001$, $R^2 = .243$, adjusted $R^2 = .234$.

As can be seen in Table 2, the interaction between gender and overall CASQ-R composite was statistically significant [β -weight = 0.227, $t(419) = 2.72$, $p < .01$], suggesting that gender moderates the relationship between attributional style and follow-up depression when baseline depression and age are controlled. Given this significant interaction, and in order to determine the specific relationships that attributional style had with follow-up depression within each gender after controlling for the aforementioned variables, tests of simple slopes were conducted. Among boys, attributional style was found to significantly predict changes in depressive symptoms over 1 year [β -weight = -0.199, $t(419) = -3.28$, $p < .01$]. This effect was not found to be significant among girls, suggesting no such relationship [β -weight = 0.029, $t(419) = .467$, $p = .641$]. This moderational effect is depicted in Figure 1.

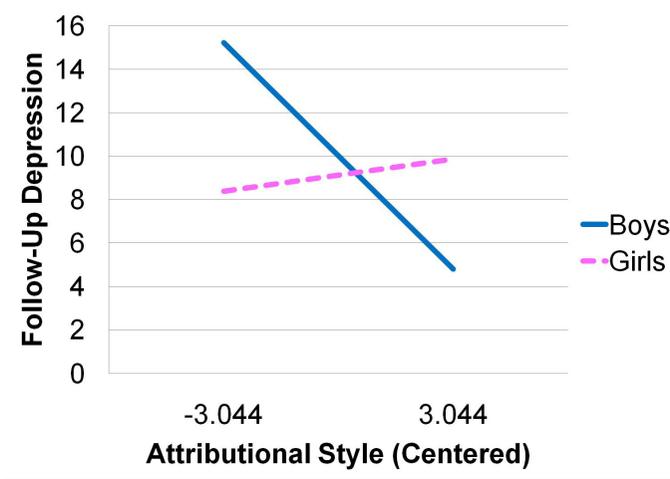


Figure 1. Gender as longitudinal moderator of the relationship between attributional style and depressive symptomatology.

Discussion

The aim of the present study was to examine the role of attributional style in the increase (or development of) depression and the moderating role of gender in this longitudinal relationship. To this end, we used a moderational model to examine gender differences in the prediction of depression at 1-year follow-up, while controlling for baseline depression. We hypothesized that (1) boys will report higher levels of depressive symptoms than their female counterparts; (2) boys will have more stable, internal, and global attributions compared to girls; and (3) attributional style will predict increases in levels of depression, but this will be moderated by gender such that attributional style in boys will be more strongly predictive of future depression levels compared to in girls.

In contrast to our first prediction, we found that levels of depressive symptoms were similar for boys and girls at both baseline and follow-up time points. This finding contrasts with previous research in which preadolescent boys were more likely to experience depressive symptoms than were preadolescent girls

(Eme, 1979; Nolen-Hoeksema et al., 1991; Pearce, 1978). Nolen-Hoeksema et al. (1991) found that boys and girls were actually equally likely to report sadness, self-derogation, and physiological complaints, whereas boys were more likely to report anhedonia and behavioral disturbance. In line with Nolen-Hoeksema and colleagues' (1991) finding, closer examination of the Mood and Feelings Questionnaire used to measure depressive symptoms in this study reveals that 16 of the 33 questions refer to symptoms of sadness, self-derogation, and physiological complaints, while 4 refer to anhedonia, and none refer to behavioral disturbance. Thus, the way that depressive symptoms were measured in this particular study may help explain the similar levels reported by boys and girls. It may also be that given the range of ages in the current sample (7 to 11 years of age), subtle differences that may emerge among certain age cohorts (younger children or older children) are lost when analyzed together.

Our second hypothesis was that boys will have more stable, internal, and global attributions compared to girls across time (Nolen-Hoeksema et al., 1991). Our findings were partially supported, with boys being more likely to make stable attributions for negative events than girls. Similarly, boys made fewer stable attributions for positive events than girls. A more stable attributional style for negative events possibly places boys at risk for experiencing more enduring difficulties over time in similar situations that could potentially contribute to lower self-esteem and dependency on others (Abramson et al., 1989; Metalsky, Laird, Heck, & Joiner, 1995).

Our final hypothesis was that gender would moderate the relationship between attributional style and changes in depressive symptomatology 1 year later, with boys being more heavily influenced by their attributional styles than girls. In line with this hypothesis, we found that attributional style plays a greater role in the development of depressive symptoms in the context of negative events for boys in the preadolescent age range. This finding is important in the context of developmental psychopathology research that takes seriously the fact that the effects of certain risk and vulnerability factors and depression are more pronounced during certain developmental periods. Little is known about

when the relationships between certain vulnerability factors emerge, whether and how they change over developmental time periods, or whether vulnerability factors interact with developmental transitions to increase or decrease the risk for depression. For instance, early research suggested that cognitive vulnerability factors do not begin to moderate the relationship between stress and depression until the transition from middle childhood to early adolescence due to developmental processes. Although the current study did not directly measure stress, our findings contribute to a growing body of literature demonstrating differential timing effects by gender.

That boys and girls showed no differences in levels of depressive symptoms, yet boys experienced more stable attributions for negative events (which play a role in the development of their depressive symptoms) is an interesting discrepancy. It may be that other risk factors are at play with regard to depressive symptoms in girls, which were not explored in the context of this article. For example, research has shown that other factors, such as perceived neglect by peers (Kupersmidt & Patterson, 1991), difficulties in attachment transitions (Cryanowski, Frank, Young, & Shear, 2000), and an overly cooperative interpersonal style (Nolen-Hoeksema & Girgus, 1994), all contribute to depressive symptoms in preadolescent females.

That trajectories for the development of depression are different between boys and girls in the preadolescent age range has implications for the treatment of depression. Due to the well-known difference in prevalence rates between boys and girls at adolescence, depression and associated attributional styles are often overlooked in preadolescent boys. Our findings emphasize the need to pay attention to vulnerability factors in preadolescent boys, which may put them at risk for the development of later depressive symptoms.

Several limitations to the study should be considered and addressed through future research. The most important limitation of the current study is that life stressors or life events were not measured. The attributional style literature discusses depressogenic attributional style as a vulnerability factor in the context of a diathesis stress model, such that attributional style is thought

to interact with negative events to predict increases in depressive symptoms in children and adolescents. Although it is true that findings do not always conform exactly to what was originally proposed in this regard (Abela & Hankin, 2008), it is essential for future research of the moderational role of gender to include the assessment of life stressors.

Further limitations include the fact that the sample was not a clinical sample and, as such, our findings cannot be generalized to clinically depressed preadolescents. Additionally, attributional style was assessed only at baseline, and it would be worthwhile for future research to collect this information at follow-up as well. The inclusion of additional cognitive vulnerability factors in future work is also important, as recent studies of cognitive vulnerability in youth depression (reviewed in Abela & Hankin, 2008) point to the potential important interaction of multiple cognitive vulnerability factors in the development of depression. Finally, future research studies may choose to use a multimethod approach to assessing attributional style, including, for instance, a semistructured interview (e.g., Children's Attributional Style Interview; Conley, Haines, Hilt, & Metalsky, 2001).

Despite these limitations, the current study is important given that few studies of attributional style as cognitive vulnerability factor have considered moderators (such as gender) in a longitudinal design (Abela & Hankin, 2008). In addition, it is currently unknown why preadolescent boys may be demonstrating higher rates of depression compared to girls, with few studies examining the role cognitive vulnerability factors may play in this regard (Kistner, David, & White, 2010). The current study addresses this gap by demonstrating a potential role for depressogenic attributional style in response to negative events, particularly for boys, in a large sample of preadolescent children.

References

- Abela, J. R., & Hankin, B. L. (2008). Cognitive vulnerability to depression in children and adolescence: A developmental psychopathology approach. In J. R. Z. Abela & B. L. Hankin (Eds.), *Handbook of child and adolescent depression* (pp. 35–78). New York: Guilford Press.

- Abramson, L. Y., Metalsky, G. I., & Alloy, L. B. (1989). The hopelessness theory of depression: Does the research test the theory? In L. Y. Abramson (Ed.), *Social cognition and clinical psychology: A synthesis* (pp. 33–65). New York: Guilford.
- Abramson, L. Y., Seligman, M. E., & Teasdale, J. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology, 87*, 49–74.
- Angold, A., Costello, E. J., Messer, S. C., Pickles, A., Winder, F., & Silver, D. (1995). Development of a short questionnaire for use in epidemiological studies of depression in children and adolescents. *International Journal of Methods in Psychiatric Research, 5*, 237–249.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182.
- Blumenfeld, P. C., Pintrich, P. R., & Hamilton, V. L. (1986). Children's concepts of ability, effort, and conduct. *American Educational Research Journal, 23*, 95–104.
- Cole, D. A., Ciesla, J. A., Dallaire, D. H., Jacquez, F. M., Pineda, A. Q., LaGrange, B., et al. (2008). Emergence of attributional style and its relation to depressive symptoms. *Journal of Abnormal Psychology, 117*, 16–31.
- Conley, C. S., Haines, B. A., Hilt, L. M., & Metalsky, G. I. (2001). The Children's Attributional Style Interview: Developmental tests of cognitive diathesis-stress theories of depression. *Journal of Abnormal Child Psychology, 29*, 445–463.
- Cryanowski, J. M., Frank, E., Young, E., & Shear, K. (2000). Adolescent onset of the gender difference in lifetime rates of major depression. *Archives of General Psychiatry, 57*, 21–27.
- Daviss, W. B., Birmaher, B., Melhem, N. A., Axelson, D. A., Michaels, S. M., & Brent, D. A. (2006). Criterion validity of the Mood and Feelings Questionnaire for depressive episodes in clinic and non-clinic subjects. *Journal of Child Psychology and Psychiatry, 47*, 927–934.
- Eme, R. F. (1979). Sex differences in childhood psychopathology: A review. *Psychological Bulletin, 86*, 574–595.
- Gladstone, T. R., & Kaslow, N. J. (1995). Depression and attributions in children and adolescents: A meta-analytic review. *Journal of Child Abnormal Psychology, 23*, 597–606.
- Gladstone, T. R., Kaslow, N. J., Seeley, J. R., & Lewisohn, P. M. (1997). Sex differences, attributional style, and depressive symptoms among adolescents. *Journal of Abnormal Child Psychology, 25*, 297–305.
- Goodyer, I. M., & Sharp, C. (2005). Childhood depression. In B. Hopkins, R. G. Barr, G. F. Michel, & P. Rochat (Eds.), *The Cambridge encyclopedia of child development* (pp. 420–423). Cambridge, UK: Cambridge University Press.
- Harrington, R., Fudge, H., Rutter, M., Pickles, A., & Hill, J. (1990). Adult outcomes of child and adolescent depression. *Archives of General Psychiatry, 47*, 465–473.

- Kaslow, N. J., & Nolen-Hoeksema, S. (1991). *Children's Attributional Style Questionnaire-Revised*. Unpublished manuscript, Emory University, Atlanta, GA.
- Kistner, J. A., David, C. F., & White, B. A. (2003). Ethnic and sex differences in children's depressive symptoms: Mediating effects of perceived and actual competence. *Journal of Clinical Child and Adolescent Psychology*, 32, 341-350.
- Kupersmidt, J. B., & Patterson, C. J. (1991). Childhood peer rejection, aggression, withdrawal, and perceived competence as predictors of self-reported behavior problems in preadolescence. *Journal of Abnormal Psychology*, 100, 427-449.
- Lewinsohn, P. M., Rohde, P., Klein, D. N., & Seeley, J. R. (1999). Natural course of adolescent major depressive disorder: I. Continuity into young adulthood. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38, 56-63.
- Metalsky, G. I., Laird, R. S., Heck, P. M., & Joiner, T. E. (1995). Attribution theory: Clinical applications. In W. O'Donohue & L. Krasner (Eds.), *Theories of behavior therapy: Exploring behavior change* (pp. 385-413). Washington, DC: American Psychological Association.
- Nolen-Hoeksema, S. (1990). *Sex differences in depression*. Stanford, CA: Stanford University Press.
- Nolen-Hoeksema, S., & Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin*, 115, 424-443.
- Nolen-Hoeksema, S., Girgus, J. S., & Seligman, M. E. (1991). Sex differences in depression and explanatory style in children. *Journal of Youth and Adolescence*, 20, 223-245.
- Office of National Statistics. (1991, 2007). <http://www.statistics.gov.uk/hub/regional-statistics/england/index.html>
- Pearce, J. B. (1978). The recognition of depressive disorder in children. *Journal of the Royal Society of Medicine*, 71, 494-500.
- Rohde, P., Lewinsohn, P.M., & Seeley, J. R. (1991). Comorbidity of unipolar depression: II. Comorbidity with other mental disorders in adolescents and adults. *Journal of Abnormal Psychology*, 100, 214-222.
- Rholes, W. S., & Ruble, D. N. (1984). Children's understanding of dispositional characteristics of others. *Child Development*, 55, 550-560.
- Seligman, M. E., Peterson, C., Kaslow, N. J., Tanenbaum, R. L., Alloy, L. B., & Abramson, L. Y. (1984). Attributional style and depressive symptoms among children. *Journal of Abnormal Psychology*, 93, 235-238.
- Sharp, C., Croudace, T., Goodyer, I. M., & Amtmann, D. (2005). The Strengths and Difficulties Questionnaire: Predictive validity of parent and teacher ratings for help-seeking behaviour over one year. *Journal of Educational and Child Psychology*, 22, 28-44.
- Sharp, C., van Goozen, S., & Goodyer, I. (2006). Children's subjective emotional reactivity to affective pictures: Gender differences and their antisocial correlates in an unselected sample of 7-11-year-olds. *Journal of Child Psychology and Psychiatry*, 47, 143-150.

- Thompson, M., Kaslow, N.J., Weiss, B., & Nolen-Hoeksema, S. (1998). Children's Attributional Style Questionnaire-Revised: Psychometric examination. *Psychological Assessment, 10*, 166-170.
- Wood, A., Kroll, L., Moore, A., & Harrington, R. (1995). Properties of the Mood and Feelings Questionnaire in adolescent psychiatric outpatients: A research note. *Journal of Child Psychology and Psychiatry, 36*, 327-334.
- Wright, D. B. (2006). Comparing groups in a before-after design: When t test and ANCOVA produce different results. *British Journal of Educational Psychology, 76*, 663-675.

Copyright of Bulletin of the Menninger Clinic is the property of Guilford Publications Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.