

Gender Differences in Early Risk Factors for Adolescent Depression Among Low-Income Urban Children

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One component of a model by Nolen-Hoeksema and Gergus, who propose that risk factors for adolescent depression are more common in girls than in boys during childhood, was tested with 85 low-income, urban, African American and Latino kindergarten through fourth grade children who completed inventories of depression, stress, attributional style, gender role, and body image. Endorsing two of three predicted risk factors, girls reported slightly poorer body image and identified more strongly with a feminine gender role. Boys, however, reported a more negative attributional style. Feminine gender role was not associated with body image or negative attributional style. The applicability of the proposed model to a low-income, ethnic minority, urban population is discussed.

Keywords: gender differences, depression, African American, early childhood, risk factors

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Before adolescence, boys and girls have similar rates of depressive symptoms (Brooks-Gunn & Petersen, 1991; Nolen-Hoeksema & Girgus, 1994). Owing to an increase in depressive symptoms among female adolescents (Kandel & Davis, 1982), females report significantly higher rates of depressive symptoms than do males beginning in adolescence and persisting into adulthood (Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993; Nolen-Hoeksema & Girgus, 1994; Petersen et al., 1993). Because the bulk of the research in this area has focused on predominantly White middle-class samples (Grant et al., 1999), the degree to which these well-established findings are applicable to low-income urban youth of color is not well understood.

Gender and Depression in Low-Income Urban African American Children

Issues of race and ethnicity are central to discussions of urban poverty, as there is a substantial overrepresentation of people of color in low-income urban neighborhoods (McLoyd, 1998). Poverty rates for African American youth are two and a half times those for European American youth, with approximately 31% of African American children and adolescents living in poverty (U.S. Census Bureau, 2000). Approximately 28% of Latino children and adolescents live in poverty (U. S. Census Bureau, 2000), and poor African American and Latino youth are more likely than their White counterparts to experience persistent poverty (Huston, McLoyd, & Coll, 1997). Low-income urban children are also at higher risk than are other children for a host of additional stressful life experiences and related psychological problems (DuRant, Cadenhead, Pendergrast, Slavens, & Linder, 1994). Although much existing research with low-income urban youth focuses on externalizing outcomes, some research suggests that these youth experience heightened rates of both internalizing and externalizing symptoms (Grant, Katz, et al., 2004). Focusing primarily on externalizing outcomes may lead researchers to underestimate the psychological symptoms of low-income ur-

ban girls, given the existence within the broader population of an increase in depressive symptoms for girls during adolescence (Nolen-Hoeksema & Girgus, 1994; Petersen et al., 1993).

Although few studies have examined gender differences in depression in a low-income, urban, African American and Latino sample (Garrison, Schluchter, Schoenbach, & Kaplan, 1989; Kagawa-Singer, Katz, Taylor, & Vanderryn, 1996), results of at least one study on this topic are consistent with previous literature on the general population—among low-income urban adolescents of color, girls report higher rates of anxious and depressed symptoms than boys (Grant, Compas, Thurm, McMahon, & Gipson, 2004; Grant, Katz, Thomas, O’Koon, Meza, DiPasquale, et al., 2004). The present study addresses the need for additional research to understand the processes that may contribute to a relationship between gender and depression in this population.

A Diathesis–Stress Model Explaining Gender Differences in Rates of Depression

Nolen-Hoeksema and Girgus (1994) proposed a diathesis–stress model to explain the emergence of higher rates of depressive symptoms in girls than in boys during adolescence. The model posits that the types of factors that create risk for depression are the same for boys and girls, but girls possess more of these risk factors than do boys throughout childhood. In adolescence, exposure to an increase in stressful experiences (whether or not there are gender differences in stress exposure) interacts with these preexisting risk factors to lead to depression. Because girls possess more preexisting risk factors than boys, they are more likely to become depressed in the face of the increased stressors that accompany adolescence.

Three of the risk factors for depression that Nolen-Hoeksema and Girgus (1994) argue are more prevalent in girls than boys before adolescence are (a) a negative attributional style, (b) poor body image, and (c) identification with a stereotypically feminine gender role.

Attributions for negative events that are stable, global, and internal are associated with increased vulnerability to depression in both children and adults (Abramson, Seligman, & Teasdale, 1978; Gladstone & Kaslow, 1995; Seligman, 1975). Perhaps because of differential socialization of male and female children, biological sex differences in cognitive responses to stress, or other factors, there is some evidence that adolescent girls are more likely than boys to use the problematic stable, global, and internal attributional style for negative events (Schwartz & Koenig, 1996). This gender difference in negative attributional style has not been found consistently, however (Hankin & Abramson, 2001). And the extent to which such a gender difference in attributional style might be present before adolescence is unknown.

In adolescents and adults, poor body image is also associated with depression (Cohen-Tovee, 1993; Grubb, Sellers, & Waligroski, 1993), and women suffer from poor body image more than men (Feingold & Mazzella, 1998). There is also increasing evidence that girls may begin to have body image concerns even before adolescence (Bryant-Waugh & Lask, 1995; Schur, Sanders, & Steiner, 2000; Thelen & Cormier, 1995; Thelen, Powell, Lawrence, & Kuhnert, 1992; Truby & Paxton, 2002). For example, Lucero, Hill, and Ferraro (1999) found evidence that girls as young as first graders report poorer body image than boys. The degree to which gender differences in body image exist in African American and Latino preadolescents has remained largely uninvestigated, although there is some evidence that African American children have fewer body image concerns than do European American children (Lawrence & Thelen, 1995). This finding is consistent with research suggesting that, among adult women, African Americans have a more positive body image than their White counterparts (Abrams, Allen, & Gray, 1993). Nonetheless, some research conducted with low-income urban African American adolescents suggests that, even within this population, girls have poorer body images than their male counterparts, and

poor body image is predictive of depressive symptoms (Grant et al., 1999).

Gender roles are culturally shared assumptions and expectations about sex differences in personality, abilities, and preferences (Weinraub et al., 1984). Adolescent girls who adopt a more traditionally feminine personality style (e.g., less instrumental behavior and more reliance on others for self-worth) have higher levels of depressive symptoms (Girgus, Nolen-Hoeksema, & Seligman, 1989). In contrast, possessing stereotypically masculine traits (e.g., instrumentality and autonomy) may actually be protective against depressive symptoms (Petersen & Ebata, 1987; Rose & Montemayor, 1994). Although there is considerable evidence of gender differences in sex roles beginning in early childhood (Auger, Blackhurst, & Wahl, 2005; Blakemore, 2003; Bosacki & Moore, 2004; Turner & Gervai, 1995), there have been few studies to examine this variable in relation to depression. In addition, the extent to which cultural differences in gender roles might influence this association is not known.

Nolen-Hoeksema and Girgus (1994) explain the steps needed to verify their diathesis-stress model for depression. Ideally, a longitudinal design following boys and girls from childhood through adolescence would allow researchers to fully test this model. Risk factors for depression, stressful life events, and level of depressive symptomatology would be measured at a number of points. For results to support this theory, first, girls would need to show more risk factors for depression than boys before adolescence. Second, during adolescence, girls and boys would need to show an increase in stressful life events. Finally, as the stressors increase, they would need to be shown to interact with preexisting risk factors to predict an increase in depressive symptomatology in girls.

Hankin and Abramson (2001) recently reviewed the literature for studies testing Nolen-Hoeksema and Girgus's (1994) model in full and found no studies testing all of the components of the model. They did find evidence, however, that stressful life events increase dur-

ing adolescence for both boys and girls (Hankin & Abramson, 2001) and evidence for some of the risk factors Nolen-Hoeksema and Girgus identified (as summarized above).

Since Hankin and Abramson's (2001) comprehensive review, one new study designed to test Nolen-Hoeksema and Girgus's (1994) model has been published: Seiffge-Krenke and Stemmler (2002) examined the model in a sample of German adolescents. They found some evidence of Nolen-Hoeksema and Girgus's theory in that poor body image interacted with pubertal timing to increase the risk for depression in adolescent girls.

The sample of predominantly White middle-class adolescents who participated in Seiffge-Krenke and Stemmler's (2002) study is typical of the samples included in Hankin and Abramson's (2001) comprehensive review. Very little research has been conducted to examine Nolen-Hoeksema and Girgus's (1994) model with samples of young individuals or individuals of color.

The present study was designed to address these two gaps in the literature by testing the first criterion of Nolen-Hoeksema and Girgus's (1994) theory—that girls have higher risk factors than boys before adolescence—in a sample of young, urban, low-income, ethnic minority (primarily African American) children.

The following hypotheses were tested: (a) Girls and boys will report equal rates of depressive symptoms; (b) girls and boys will report equal rates of environmental stress; (c) girls will endorse a more negative attributional style than will boys; (d) girls will report poorer body image than boys; and (e) girls will identify more strongly with a traditionally feminine gender role than boys, and this identification will be associated with a more negative attributional style and poorer body image.

Method

Participants

Participants were 85 kindergarten through 4th grade children (35 boys and 50 girls) in

a Chicago public school. Thirty-one percent of the children were in kindergarten, 15% in first grade, 24% in second grade, 18% in third grade, and 13% in fourth grade. Ninety-eight percent of the children were African American, 1% were Latino, and 1% were biracial. All students were from low-income homes, as indicated by their eligibility for a federally funded school lunch program (Chicago Public Schools, 2000).

Participants were recruited through letters and consent forms that were sent by mail, as well as through research associates at a school open house. Parents completed consent forms at the open house, and teachers also reminded students to return parent consent forms.

Measures

CHILDREN'S DEPRESSION INVENTORY. The Children's Depression Inventory (CDI; Kovacs, 1979, 1992), a 27-item self-report inventory of depressive symptoms in children, was used to assess depression in this sample. Each item consists of three statements reflecting varying levels of a symptom, and the child selects the one statement from each group that best describes his or her feelings during the past 2 weeks. Higher scores on this measure reflect higher levels of depressive symptomatology. The CDI has been normed on children aged 7 through 17. Internal consistency ranges from the low to upper .80s (Reynolds, 1994). The CDI reliably and consistently differentiates between clinically depressed and nondepressed children (Reynolds, 1994). Only 4% of the normative sample was African American, and 4% was Latino. Nonetheless, reliability and validity work conducted specifically with low-income urban African American and Latino youth suggested that the measure is valid and reliable, at least for adolescents of color (Thomas, Grant, Lugo, Carleton, & Katz, 2005). In the present sample, internal consistency was adequate ($\alpha = .79$).

A 3rd grade reading level is necessary for children to independently complete the

CDI (Barreto & McManus, 1997), but because of the lack of self-report measures of depression available that have been normed on younger children, the CDI was used in this study with special modifications for administration to children in kindergarten through second grade. Ialongo, Edelsohn, Werthamer-Larsson, Crockett, and Kellam (1996), who also used the CDI with a younger sample, recommend reading each item aloud twice, a procedure that was followed in this study. Trained clinicians (predoctoral psychology interns) administered items to the younger children individually and were careful to use clinical skills to assess and clarify comprehension. The methods for administration were standardized across participants.

CHILDREN'S ATTRIBUTIONAL STYLE QUESTIONNAIRE. The Children's Attributional Style Questionnaire-Revised (CASQ; Seligman et al., 1984; Thompson, Kaslow, Weiss & Nolan-Hoeksema, 1998) was used as a measure of attributional style in children. The original CASQ consists of 48 items that describe 24 positive events and 24 negative events. The items differ in terms of three causal dimensions (locus of control, stability, and globality). For each item, one dimension is changed, while the others are held constant. Participants choose one of two alternative explanations for the cause of the event. For example, for the event in which a poor grade is received in school, there are two response choices: attributing the grade to being a poor student or to the teacher giving difficult tests.

Higher scores on this measure reflect more self-affirming attribution styles (internal, stable, or global responses for positive events and external, unstable, or specific responses for negative events), and lower scores represent less self-affirming styles (internal, stable, or global attributions for negative events and external, unstable, or specific responses for positive events). Attributional style is determined by compiling subscales for the three causal dimensions for

both positive and negative events and adding them to make composite scales.

Internal validity for this measure is only moderate (Cronbach's alpha ranging from .42 to .73 for composite scores) (Gladstone & Kaslow, 1995). In addition, a shortened version of the scale was used in the current study to make the assessment more manageable for young children. This version contains 24 of the original items and yields the same composite scores but has slightly lower reliability than the original CASQ (Thompson et al., 1998). Reliability has also been found to be lower for African American children (Thompson et al., 1998). In the current study, internal consistency was comparable to that found in other studies of African American children ($\alpha = .44$).

CHILDREN'S SEX ROLE INVENTORY. The Children's Sex Role Inventory (CSRI; Boldizar, 1991), a direct adaptation of the Bem Sex Role Inventory (Bem, 1974), measures sex typing and androgyny in children. It consists of 20 masculine items, 20 feminine items, and 20 neutral items, each of which the child rates for how true the statement is of himself or herself. Items were chosen on the basis of their sex-typed social desirability rather than their gender role typicality. For example, some items ask whether or not the child is good at being the boss, whether or not the child likes babies and small children, and whether or not it is important to the child to win when playing games.

The CSRI assesses femininity and masculinity as independent functions, so it is possible for a child to be classified as androgynous by earning high scores for both femininity and masculinity. The measure has previously been used with children from second grade through high school. Internal consistency is .75 for the CSRI Masculine scale (CSRI M) and .84 for the CSRI Feminine scale (CSRI F) (Boldizar, 1991). Previous studies have found test-retest reliability to be .74 for the CSRI F scale and .56 for the CSRI M scale (Boldizar, 1991).

A shortened version of the CSRI was de-

veloped and contains eight items from each original scale); this version is highly correlated with the original scale (.91 for the CSRI F scale and .83 for the CSRI M scale) (Boldizar, 1991). The short version was used in the current study to make the assessment more manageable for young children. Although previous studies showing reliability and validity data based on African American and Latino samples were lacking in the literature, in the current study, reliability was adequate with alpha levels of .65 for the CSRI M scale and .74 for the CSRI F scale.

THE MULTIDIMENSIONAL BODY-SELF RELATIONS QUESTIONNAIRE. The Multidimensional Body-Self Relations Questionnaire (MB-SRQ) (Cash, 1994) is a widely used and psychometrically sound 69-item self-report inventory for the assessment of attitudes toward the body, including generic dissatisfaction, as well as affective and cognitive dimensions. It has seven primary subscales (Appearance Evaluation, Appearance Orientation, Fitness Evaluation, Fitness Orientation, Health Evaluation, Health Orientation, and Illness Orientation) and three additional subscales (Body Areas Satisfaction scale, Self-Classified Weight scale, and Overweight Preoccupation scale).

In this study, the Appearance Evaluation subscale score was used to determine body image. On this scale, a higher score reflects more positive feelings about the body. The scale was adapted for use with children through simplification of the language. This scale has been used previously with a low-income urban African American sample (Grant et al., 1999). Internal consistency of the modified version in the present study was good ($\alpha = .87$).

STRESSFUL LIFE EVENTS INVENTORY. The Stressful Life Events Inventory is a 34-item self-report instrument that asks children to indicate whether or not various stressful experiences have occurred and then to rate their subjective impact using a 5-point scale

(Robinson, Garber, & Hilsman, 1995). In this study, the rating scale portion of the measure was omitted to make it more understandable to young children, so scores reflect whether or not events have occurred, rather than the child's response to these events. The language of several items was also simplified, and irrelevant items for children (e.g., asking about pregnancy) were omitted. Internal consistency in the current study was adequate ($\alpha = .64$).¹

Procedure

Children whose parents signed consent for participation were taken out of class to complete the survey at school. Those in second grade or below received an individual administration by doctoral candidates in a child-focused clinical psychology program. Individual administration was conducted to help maintain attention, to compensate for variability in reading ability, and to allow interviewers to assess level of comprehension. This allowed children to ask questions and allowed study administrators to clarify items as needed. In addition, this procedure allowed assessors to fill out the protocol form for the children and ensured confidentiality. The interviewers were careful to use their clinical skills to build rapport with the children and to assess understanding of items, asking children to rephrase items in their own words when the administrators were uncertain of the children's comprehension. Although flexibility in timing and

¹As suggested by an anonymous reviewer, the extent to which stressful life experiences would be expected to cluster together to form a unitary construct is not clear. Nonetheless, there is mounting evidence that exposure to particular stressful experiences sets the stage for additional stress exposure (e.g., parental divorce increases, the likelihood of moving, changing schools, loss of income, etc.). Perhaps for this reason, there is increasing evidence of internal consistency among stressful life event measures, and greater use of this reliability tool for these types of instruments (Grant, Compas, Thurm, McMahon & Gipson, 2004).

TABLE 1 Means and Standard Deviations of Depression and Stress Scores for Boys and Girls

	<i>n</i>	<i>M (SD) CDI score</i>	<i>M (SD) Stress score</i>
Boys	34	10.53 (6.78)	54.41 (3.36)
Girls	50	11.66 (8.00)	55.52 (6.95)

Note. CDI = Children's Depression Inventory.

wording was allowed, these administrations were standardized across children.

Children in the third and fourth grades received administration in groups of approximately 4 to 6. Administrators read assent forms to all child participants before beginning the survey. To maintain standardization across the individual and group administrations formats, each item was read aloud twice. Children who reported elevated levels of depressive symptomatology were referred to a community mental health clinic.

Results

Descriptive Statistics

Means and standard deviations for depressive symptoms and stress levels are presented in Table 1.

Analyses of Variance

A series of univariate ANOVAs were conducted, with gender as the independent variable and depressive symptoms, stress, attributional style, femininity, and body image as the dependent variables. Results indicate no gender differences in depression as measured by the CDI or in stress as measured by the Stressful Life Events Inventory, supporting the first hypothesis that boys and girls would report similar levels of depression and the second hypothesis that boys and girls would report similar levels of stress.

With the CASQ as a measure of attributional style, a significant gender difference

was found ($p = .03$) such that boys ($M = 39.28$, $SD = 3.77$) had a more negative attributional style than girls ($M = 41.04$, $SD = 3.31$). Additional statistics are presented in Table 2. This finding does not support the third hypothesis, which predicted that girls would have a more negative attributional style than boys.

Results indicate that boys and girls did not differ significantly on body image as measured by the Appearance Evaluation subscale of the MBSRQ. In fact, overall body image was positive for both genders, with the most common response being that they liked a particular body part "a lot." Nonetheless, a trend for girls to report poorer body image than boys was present ($p = .09$ for the ANOVA). Results of a supplementary item analysis of body image questions revealed that boys felt significantly better than girls about their stomachs ($p = .015$), upper bodies ($p = .006$), and muscles ($p = .041$). Thus, the first part of the fourth hypothesis, that girls would report poorer body image than boys, was partially supported.

Degree of identification with the stereotypical feminine gender role was measured with the CSRI F scale, on which higher scores represent more feminine identification. Feminine identification was treated as a continuous dependent variable. ANOVA results showed that girls ($M = 28.62$, $SD = 3.47$) identified significantly more with a traditionally feminine gender role ($p < .01$) than boys ($M = 24.23$, $SD = 4.23$), supporting the first part of the fifth hypothesis.

Correlational Analyses

Correlations were performed to test the second part of the fifth hypothesis, that feminine gender role identification would be associated with a more negative attributional style and poorer body image. Correlations among gender role identification, attributional style, body image, and depressive symptoms are presented in Table 3.

Results indicate that identifying as more feminine was significantly related to attribu-

TABLE 2 Results of ANOVAs Comparing Boys and Girls on the Children's Attributional Style Questionnaire (CASQ), Appearance Evaluation Scale of the Multidimensional Body-Self Relations Questionnaire (MBSRQ), and Feminine Scale of the Children's Sex Role Inventory (CSRI F)

Variable	Mean score for boys (SD)	Mean score for girls (SD)	n total	df	F	Significance effect size	
CASQ	39.28 (3.77)	41.04 (3.31)	80	79	4.87	.030*	.25
MBSRQ	44.35 (7.72)	41.46 (7.48)	84	83	2.96	.090	.19
CSRI F	23.88 (4.23)	28.16 (3.47)	84	83	25.73	.000**	.56

* $p < .05$. ** $p < .01$.

tional style ($r^2 = .311$, $p = .005$) but not in the expected direction: Higher feminine identification was related to a more positive attributional style. Identifying as more feminine was not significantly related to body image. Thus, the hypothesis was not supported for either prediction.

Results of correlational analyses indicate that identification as more traditionally masculine was associated with positive body image ($r^2 = .634$, $p = .01$). And a significant correlation between positive attributional style and positive body image ($r^2 = .274$; $p < .05$) was found. Depression, however, was not significantly correlated with masculinity, femininity, attributional style, or body image.

Supplemental Analyses

At the request of an anonymous reviewer, additional supplemental analyses were conducted to test for age effects and potential

Age \times Gender interaction effects. No age effects were found for depression, attributional style, stress, or gender role, but a significant age effect emerged for body image, such that older girls reported significantly poorer body image than did younger girls, $F(1, 50) = 4.35$, $p < .05$. None of the Age \times Gender interactions were significant.

Discussion

Applicability of the Diathesis–Stress Model

The diathesis–stress model proposed by Nolen-Hoeksema and Girgus (1994) offers an explanation for the emergence of gender differences in depression during adolescence. The model focuses on the interaction of gender-specific predisposing factors with adolescent stress as the precipitant of adolescent depression. Consistent with this model and

TABLE 3 Correlations Among Feminine Gender Role Identification (Children's Sex Role Inventory), Attributional Style (Children's Attributional Style Questionnaire), and Body Image (Multidimensional Body-Self Relations Questionnaire)

Variable	Femininity	Masculinity	Positive attributional style	Positive body image	Depressive symptoms
Femininity	—				
Masculinity	.17	—			
Positive attributional style	.31**	.11	—		
Positive body image	.19	.63**	.27*	—	
Depressive symptoms	-.01	-.07	-.27	-.12	—

* $p < .05$. ** $p < .01$.

other research findings, no sex differences in rates of depression for school-age children emerged in the present study. Also consistent with this model, there were no sex differences in stress for the school-age children in this study.

The part of Nolen-Hoeksema and Girgus's (1994) model proposing that girls possess predisposing risk factors for depression before adolescence was partially supported by the results of this study. As predicted, girls showed trends toward slightly poorer overall body image than boys, with significantly poorer body image in some specific areas (e.g., stomach and upper body). There was also some evidence that these gender differences may increase over time, as older girls in this sample reported poorer body image than did younger girls. Girls were also more likely than boys to identify with a feminine gender role, whereas only a masculine gender role predicted positive body image.

Findings failing to support the model were that girls reported a more positive attributional style than did boys. Furthermore, identification with a feminine gender role was not associated with other problems such as poor body image, but, instead, was linked with positive attributional style. Finally, current depression was not linked with any of the three proposed risk factors.

These findings could suggest several possible conclusions. The first is that, for this population, poorer body image and a stronger feminine gender role orientation, but not a negative attributional style, are more common in girls and are predisposing factors for depression in adolescence. According to Nolen-Hoeksema and Girgus's model (1994), these predisposing factors may be latent in childhood because they are less salient and because the increased stress of adolescence has not yet interacted with them to induce depression. Perhaps body image concerns increase for girls as they get older and become especially salient as they enter puberty. Grant et al. (1999) found that African American adolescent girls reported significantly poorer body image than their male counterparts, mirroring findings among White adolescents. The present study's find-

ing that older girls reported poorer body image than younger girls is consistent with this hypothesized explanation.

Gender role identification may also be less salient in childhood and less related to negative outcomes such as behavioral and achievement restrictions, whereas during adolescence, pressures to behave in accordance with gender role beliefs may become more important and more detrimental. Thus, as argued by Nolen-Hoeksema and Girgus (1994), poor body image and a feminine role orientation may not pose a risk until they are "activated" in adolescence by changes in physical appearance and social expectations. Then, their interaction with stress in adolescence may lead to depressive symptoms.

A second possibility also consistent with Nolen-Hoeksema and Girgus's (1994) model is that the specific predisposing factors for depression that girls face may vary across cultures and socioeconomic groups. Perhaps negative attributional style, body image concerns, and feminine gender role orientation are not the primary risk factors for depression experienced by low-income, urban, ethnic minority girls. Although the girls in the present study may possess predisposing risk factors for depression, these risks may not have been adequately captured by the particular measures used here. This would explain the lack of significant findings for overall body image, the reversal of expected results for attributional style, and the fact that neither of these factors, nor feminine gender role identification, was related to current depression.

Hankin and Abramson's review (2001) suggests that other empirically supported explanations for the gender difference in adolescent depression include genetic factors that are more strongly associated with depression for pubertal girls than boys, girls' higher use of a ruminative response style, and girls' greater likelihood of experiencing adversities within their families as a result of their gender roles. Because these theories have not yet been fully explored in understudied populations, it is unknown to what extent they may be relevant

to African American and Latino, low-income, urban children, and adolescents.

Feminine Gender Role Orientation

The lack of a link between a feminine gender role orientation and either poor body image or negative attributional style could reflect possible cultural influences. While the largely White and middle class dominant culture in the United States possesses a concept of femininity that is related to depression, poor body image, and negative attributional style, African American girls may hold a broader concept of femininity that is more in line with the African American cultural premium placed on women's competence, resourcefulness, versatility, and connection to family and community (Ward, 1996). This expanded definition of what is desirable and acceptable for women may allow girls and women more areas in which to base their identity and gain self-esteem, thus facilitating a more positive attributional style and protecting them against a more restrictive gender role associated with depression. Because of the history of oppression of the African American community, African American girls may be taught to have a healthy resistance against dominant cultural pressures that seek to define them in negative ways (Azibo, 1996; Boyd-Franklin, 1989; Spencer & Dupree, 1997; Swanson, Spencer, & Petersen, 1998). Such coping strategies, in turn, may help to reduce the connection between gender role identification and depression.

It is also important to note that the measure of gender role orientation that was used in this study is different from the measures used in previous studies. Whereas this study's measure focuses on personality characteristics, other researchers have examined toy and activity preferences as indices of gender role orientation (Beere, 1979; Downs & Langlois, 1988; Huston, 1983). The more personality-focused measure was selected to reflect a deeper, more stable concept of gender role orientation than a focus on toy and activity preferences was expected to yield. Although younger children may

hold more concrete views of themselves than older children, the use of the personality-oriented measure was considered appropriate to the age group in this study given that the measure used simple language and given that children begin to show gender differences in personality-oriented dimensions such as relational style and competitiveness as early as age 2½ to 3 years (Maccoby, 1998). Additional research is needed to replicate these findings using this measure with similar and disparate samples.

Gender and Attributional Style

Aspects of African American culture and/or experience also may help to explain the reversal of expected findings for sex differences in attributional style. According to Lewis (1975), the African American community instills assertiveness, inner strength, perseverance, and independence in children. And Ward (1996) argues that, in communities that face racism, an important aspect of socialization is learning when to attribute lack of success to personal responsibility and when to attribute it to social forces (e.g., racism), thus helping children to avoid blaming themselves for victimization. The African American community's emphasis on development of high self-esteem in girls (American Association of University Women, 1992; Ward, 1996) may encourage a more adaptive attributional style for girls, in particular.

It is important not to make too much of the gender differences in attributional style found in the present study, however, as the attributional style measure used has consistently demonstrated less than ideal reliability, particularly with African American children (Hankin & Abramson, 2002; Thompson et al., 1998). At the time this study was conducted, the CASQ was the only attributional style measure available for children. Recently, however, Conley, Haines, Hilt, and Metalsky (2001) have developed a new measure to assess attributional style in young children. It has been demonstrated to have

validity and reliability superior to those with the CASQ (Conley et al., 2001). Future researchers should retest the attributional style hypotheses examined in this study using that superior measure.

Masculine Gender Role and Body Image

Although feminine gender role orientation was not related to body image, a masculine gender role was associated with body image such that those who were more masculine had a more positive body image. This suggests that traditionally masculine traits and behaviors may be protective factors against poor body image, much like they have been found in previous research to be protective against depression. Perhaps certain traditionally masculine traits such as instrumental behaviors or assertiveness lead to positive thoughts about the self and the usefulness of one's body. Boys' higher level of sports participation may be a mediator, allowing an improved body image through demonstrated competence in physical activity. These findings suggest that encouraging these traits may be of benefit to both boys' and girls' body image.

Limitations

Three primary limitations affect the present study. The first is that the data are cross-sectional. Additional longitudinal research is needed to fully examine the ways in which gender-linked risk factors present in childhood might interact with stressors that emerge during adolescence to predict gender differences in depression.

The second is that a good number of analyses were conducted, which might have lead to an inflation of the experiment-wise error rate. Therefore, the results of the present study should be interpreted with caution and replicated with other samples.

The final limitation of the present study has to do with the measures used. None of the measures used in the present study were initially designed to be used with samples as

young as the children who participated in the present study. Therefore, the extent to which measurement issues might have influenced the findings in the present study is not clear. In particular, the meaning of some of the items might vary across development. For example, one would expect young girls to have different expectations for what their upper body (i.e., chest and breasts) would look like relative to adolescent girls. At this time, qualitative understanding of how young children think and feel about their bodies is missing from the literature.

Despite the measurement limitations, a significant strength of the study is that it represents the first study to test the basic tenets of Nolen-Hoeksema and Girgus's (1994) model with a sample of young children. In addition, results of the present study add to the nascent literature on measures of depression and risk factors for depression in young children. In particular, results of the reliability analyses in the present sample provide some preliminary data on psychometrics for the measures used with a young sample. Results of correlational analyses provide some evidence of validity (as associations were generally in expected directions). Much additional research is needed to establish valid and reliable measures to test diathesis-stress models of depression in young children.

Conclusions

In conclusion, results of the present study partially support Nolen-Hoeksema and Girgus's (1994) diathesis-stress model for gender differences in adolescent depression by pointing out the existence of some early risk factors for girls among low-income, primarily African American, urban children. Additional research is needed, including longitudinal studies to better track the developmental mechanisms and risk factors involved in the emergence of depression in adolescence. There is a particular need for research with understudied populations

such as African American, low-income, urban children and adolescents, as findings for this population often differ from those within the general research literature, as evidenced by this study's results. Such variations suggest that many models and theories previously considered to be universally applicable are not and that culture-specific and situation-specific risk factors for mental illness are not well understood. By better understanding the roles of stress and adversity, as well as childhood risk factors, in the development not only of depression but also of psychopathology, in general, in both male and female adolescents from diverse communities, culturally appropriate and community-relevant preventative strategies and interventions may be more successfully designed and implemented.

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