

Sibling Relationships and Adolescent Depression

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Abstract

The primary goal of this study was to examine whether characteristics of the sibling relationship (warmth and hostility) predict adolescent depression, above and beyond general family functioning. Gender differences also were examined because research has indicated that during adolescence, depression is more common for girls than for boys. In addition, girls are more likely to have more intimate relationships with others in comparison to boys. The sample included 513 15-18 year old adolescents from the Mid-Atlantic region. Surveys were given to the adolescents in school in the spring of 2007. Results indicated that higher levels of hostility with sisters and with brothers was associated with higher levels of depression for girls, but not for boys. These findings underscore the need to consider both the gender of the adolescent and the gender of the sibling when examining sibling relationships.

Sample

- 513 10th and 11th grade students (54% girls)
- Participants were public high school students in Delaware, Maryland, or Pennsylvania
- 57% Caucasian; 22% African-American; 12% Hispanic, 2% Asian
- Mean age = 16.09 (SD=.68)
- Most of the adolescents (56%) lived with both biological parents; 89% lived with their biological mother and 61% lived with their biological father

Measures

Family Functioning. *The Family Satisfaction Scale* (Olson & Wilson, 1982) was used to measure the adolescents' perceived family functioning. This measure consists of two scales – Cohesion and Adaptability. Representative items are “How satisfied are you with how close you feel to the rest of the family?” (cohesion) and “How satisfied are you with how strictly you stay with who does what chores in your family?” The response scale ranges from 1 = *dissatisfied* to 5 = *extremely satisfied*. This measure has been shown to have good psychometric properties (Olson & Wilson, 1982). The α coefficients for the Cohesion and Adaptability scales in this sample were .83 and .79, respectively.

Sibling Relationships. A sibling relationship measure (Slomkowski et al., 2001) was used to assess characteristics of the sibling relationship. This measure includes two scales – Hostility and Warmth. Representative items are “How often did your sister/brother act supportive and understanding toward you?” (warmth) and “How often did your sister/brother criticize you or your ideas?” (hostility). The response scale ranges from 1 = *never* to 7 = *always*. Previous research has supported the reliability and validity of this measure (Slomkowski et al., 2001). In the present sample, the α coefficients ranged from .87 to .91.

Measures

Adolescent Depression. The Center for Epidemiological Studies Depression Scale for Children (CES-DC; Weissman et al., 1980) was used to measure adolescent depressive symptomatology. A representative CES-DC item is “I felt sad.” Individuals respond to the 20 CES-DC items in regard to how they felt or acted during the past week. The response scale is a four-point Likert-type scale ranging from 1 = *not at all* to 4 = *a lot*. In this study, the CES-DC items were summed to reflect a total score. The psychometric properties of the CES-DC are good (Faulstich et al., 1986). The α coefficient for the CES-DC total score in this sample was .91.

Procedures

In the spring of 2007, adolescents who had parental consent and who also provided assent were given a self-report survey in school by trained research personnel. The survey took approximately 40 minutes to complete. After completing the survey, the adolescents were given a movie pass for their participation.

Analyses

Hierarchical regression models were conducted to examine whether family functioning (cohesion and adaptability) and characteristics of the sibling relationship (warmth and hostility) predict adolescent depressive symptoms. The measures of family functioning were entered in the first step. Next, the sibling relationships measures were entered. Separate models were conducted for girls and boys and for sisters and brothers.

Table 1
Means and Standard Deviations of the Family Measures by Gender

Family Measure	Adolescents with Sisters		Adolescents with Brothers		Scale Range
	Girls	Boys	Girls	Boys	
Family Cohesion	28.22 (6.27)	27.66 (6.71)	26.85 (6.15)	27.42 (6.49)	8-40
Family Adaptability	20.59 (4.97)	20.24 (4.72)	20.18 (4.99)	20.00 (4.85)	6-30
Sibling Hostility	22.05 (8.27)	22.99 (8.48)	21.85 (9.18)	23.18 (8.95)	6-42
Sibling Warmth	26.91 (8.79)	21.88 (8.56)**	24.44 (8.92)	22.09 (8.86)*	6-42

Means (and standard deviations) are presented. * $p < .05$; ** $p < .01$; *** $p < .001$.

Results

Relationship with Sisters

When adolescents with sisters were examined, the model predicting depressive symptoms from family functioning was significant for boys ($R^2 = .31, p < .001$) and for girls ($R^2 = .25, p < .001$). As shown in Table 2, adolescents who had lower levels of family cohesion had relatively higher levels of depression ($\beta = -.53, p < .01, \beta = -.42, p < .01$ for boys and girls, respectively).

When the sibling relationship measures were added, the model was significant for girls ($R^2 = .29, p < .05$), but not for boys. Closer inspection of the model for girls revealed that higher levels of hostility with sisters were associated with higher levels of depression ($\beta = .23, p < .05$) (see Table 2).

Relationship with Brothers

When adolescents with brothers were examined, neither of the models for boys were significant (see Table 3). In contrast, the model including only the family functioning measures was significant for girls ($R^2 = .25, p < .001$). Closer examination of this model indicated that adolescent girls who had lower levels of perceived family adaptability had relatively higher levels of depression ($\beta = -.36, p < .05$). The model including family functioning and brother relationship characteristics was borderline significant for girls ($R^2 = .27, p < .10$). In this model, higher hostility with brothers was significantly associated with higher levels of depression ($\beta = .18, p < .05$).

Table 2
Hierarchical Regression Analysis Predicting Depressive Symptomatology from Family Functioning and Sister Relationship Characteristics

Predictor	Model 1			Model 2		
	β	SE	β	β	SE	β
Boys						
Family Cohesion	-.92	.28	-.53**	-.97	.28	-.56**
Family Adaptability	-.06	.38	-.03	-.07	.39	-.03
Warmth				.14	.15	.10
Hostility				.19	.13	.13
Total R^2		.31***			.33***	
F for change in R^2		19.09***			1.50	
Girls						
Family Cohesion	-.83	.29	-.42**	-.88	.29	-.45**
Family Adaptability	-.21	.36	-.08	-.10	.36	-.04
Warmth				.20	.13	.14
Hostility				.35	.14	.23*
Total R^2		.25***			.29***	
F for change in R^2		18.82***			3.35*	

* $p < .05$; ** $p < .01$; *** $p < .001$.

Table 3
Hierarchical Regression Analysis Predicting Depressive Symptomatology from Family Functioning and Brother Relationship Characteristics

Predictor	Model 1			Model 2		
	β	SE	β	β	SE	β
Boys						
Family Cohesion	.00	.33	.00	.05	.33	.03
Family Adaptability	-.45	.44	-.20	-.45	.43	-.20
Warmth				-.13	.14	-.10
Hostility				.25	.13	.19
Total R^2		.04			.09	
F for change in R^2		1.95			2.71	
Girls						
Family Cohesion	-.27	.23	-.16	-.24	.24	-.14
Family Adaptability	-.78	.29	-.36**	-.73	.29	-.34*
Warmth				.04	.10	.04
Hostility				.21	.10	.18*
Total R^2		.25***			.27	
F for change in R^2		21.70***			2.42	

* $p < .05$; ** $p < .01$; *** $p < .001$.

Conclusions

Results from this study suggest that family functioning is more consistently linked to depression for girls than for boys during adolescence. Moreover, in this study, sibling relationship characteristics were associated with depression for girls, but not for boys. More specifically, girls who had more hostile relationships with their sisters and with their brothers reported significantly higher levels of depression than those with less hostile sibling relationships. These results underscore the need to take gender into account when examining sibling relationships. It should be noted that the present study focused solely on adolescent depression (an internalizing problem that is more common among girls than boys). Future research should examine different indicators of adolescent adjustment (e.g., externalizing problems such as substance use, delinquency) to explore whether the same pattern of relations is observed.

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