# Longitudinal Relations Between Close Friend Support, Sibling Warmth, and Internalizing Problems during Adolescence

*Kaitlin M. Flannery[1], Christine McCauley Ohannessian[23], Laura Finan[4]*

University of Connecticut[1], University of Connecticut School of Medicine[2], Connecticut Children's Medical Center[3], University of Delaware[4]

## INTRODUCTION

- During adolescence, youth are at heightened risk for developing internalizing problems such as anxiety and depression (Negriff & Susman, 2011).
- The presence of both close friendships and warm sibling relationships has been associated with a decreased likelihood of developing these problems (Buist et al., 2013; Parker & Asher, 1993).
- Despite this, few studies have directly compared the impact of friends and siblings on later mental health outcomes.
- The aim of current study was to compare the roles of close friend support and brother and sister warmth in predicting symptoms of anxiety and depression during adolescence.
- The mechanisms by which the presence of social support predicts positive outcomes is also unknown. Based on research suggesting that peer and sibling relationships are contexts in which adolescents develop social skills and increased feelings of self-worth (Buhrmester & Furman, 1987; Stocker, 1994), this study examined whether social competence and self-worth mediated the relationships between friend and sibling support and later internalizing problems.

## SAMPLE

- 1,036 adolescents (53% female; 58% Caucasian, 23% African American, 12% Hispanic, 2% Asian, 5% Other)
- At Time 1, all adolescents were in 10th or 11th grade ($M_{age}$ = 16.15 years, $SD$ = .75)
- If adolescents reported having more than one brother or sister, data from the oldest sibling were used

## PROCEDURE

During the spring of 2007 (Time 1), 2008 (Time 2), and 2009 (Time 3), trained research assistants administered surveys to assenting adolescents attending one of seven participating public high schools in Delaware, Maryland, and Pennsylvania. All participants had parental consent to participate. The survey took approximately 40 minutes to complete. Throughout the study, participants were assured that their responses would be kept confidential, and were made aware of their option to withdraw from the study at any time. Participants were given a movie pass as compensation for their time, and were invited to participate again the following spring.

## MEASURES

**Brother and/or sister warmth (T1)**
- 6-item warmth subscale of the Sibling Relationship Questionnaire (SRQ; Slomkowski et al., 2001; sisters α = .91, brothers α = .90)
- Example item: "In the past month, how often did your brother/sister act supportive and understanding toward you?"
- Response: *Never* (1) to *Always* (7). Was reverse coded so that higher scores indicated greater warmth

**Close friend support (T1), social competence, and self-worth (T2)**
- The Self-Perception Profile for Adolescents (SPPA; Harter, 1998)
- α = .90, .77, and .80, respectively
- Response: *Low perceived competence* (1) to *High perceived competence* (4)

**Depressive symptoms (T3)**
- 20-item Center for Epidemiological Studies Depression Scale for Children (CES-D; Weissman et al., 1980; α = .92)
- Example item: During the past week "I felt sad"
- Response: *Not at all* (1) to *A lot* (5)

**Anxiety (T3)**
- 41-item Screen for Child Anxiety Related Disorders (SCARED; Birmaher et al., 1995; α = .94)
- Assessed anxiety symptoms across 3 months, e.g., "I am nervous"
- Response: *Not true or hardly ever true* (0) to *Very true or often true* (2)

## RESULTS

- Path analysis was used to examine whether close friend support, sister warmth, and brother warmth at Time 1 predicted social competence and self-worth at Time 2, and whether social competence and self-worth then predicted anxiety and depression symptoms at Time 3. Direct paths between Time 1 variables and Time 3 variables also were examined.
- As shown in Figure 1:
    - Close friend support and brother warmth predicted greater self-worth and social competence
    - Self-worth, in turn, predicted lower levels of depression
    - Social competence, in turn, predicted lower levels of anxiety
    - Self-worth mediated the relationship between close friend support and depression (c.r. = -3.52, $p$ < .001), and between brother warmth and depression (c.r. = -1.89, $p$ = .06)
    - Social competence mediated the relationship between close friend support and anxiety (c.r. = -2.13, $p$ < .05)
    - Close friend support directly predicted fewer symptoms of depression and, along with sister warmth, lower levels of anxiety

## RESULTS

*Figure 1.* Pathways between friend and sibling support at Time 1, indicators of competence at Time 2, and internalizing symptoms at Time 3
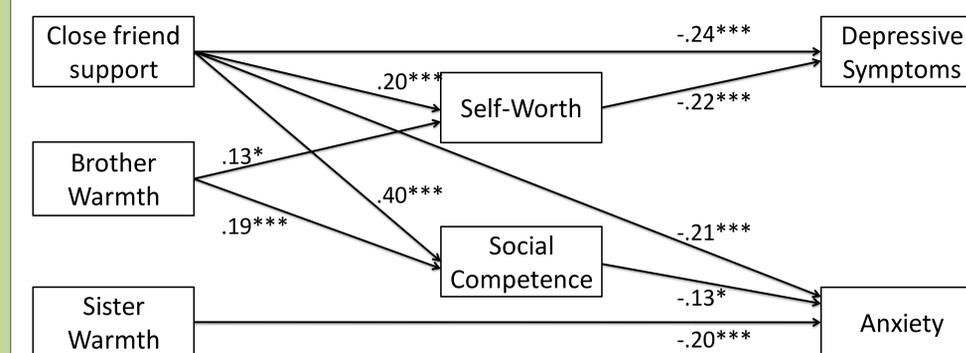


*Note.* For ease of interpretation, only significant paths are shown. Standardized regression coefficients are presented. Control variables (gender), covariances, and disturbance terms are not shown. *$p$ < .05; **$p$ < .01.; ***$p$ < .001

Fit indices suggested that the specified model fit the data well: ($X^2$(11) = 27.11, $p$ = .004; NFI = .96; CFI = .97; RMSEA = .03).

## CONCLUSIONS

- After controlling for brother and sister warmth, close friend support directly predicted lower levels of both anxiety and depression, and indirectly affected these outcomes through associations with self-worth and social competence.
- Sister warmth was directly associated with lower levels of anxiety.
- Brother warmth did not directly predict either depressive or anxious symptoms, but influenced these outcomes though its effect on self-worth and social competence.
- These results demonstrate that both peers and siblings are important sources of social support in adolescence, and greater warmth and support within these relationships is associated with fewer symptoms of depression and anxiety.
- These findings also highlight the underlying role that social competence and self-worth play in the relationship between social support and later internalizing problems in adolescence.