



PROJECT MUSE®

---

## The Role of Peer Relationships in Adjustment to College

Lisa M. Swenson, Alicia Nordstrom, Marnie Hiester

Journal of College Student Development, Volume 49, Number 6, November/December 2008, pp. 551-567 (Article)

Published by Johns Hopkins University Press

DOI: <https://doi.org/10.1353/csd.0.0038>



➔ *For additional information about this article*

<https://muse.jhu.edu/article/253955>

# The Role of Peer Relationships in Adjustment to College

Lisa M. Swenson    Alicia Nordstrom    Marnie Hiester

*According to developmental research, peer relationships serve a positive function in children's, adolescents', and adults' lives. We expected that peer relationships would also benefit emerging adults as they transition into college. Using friendship quality and attachment measures, we examined the link between the closeness of peer relationships (with high school and college friends) and adjustment outcomes (academic, social, emotional, and institutional attachment) among 271 first-year college students. Results suggest that a close relationship with a high school friend is beneficial during the first weeks of college, but later in the first semester there are more benefits to having a close relationship with a new college friend.*

When an adolescent transitions into college, many changes take place. Adolescents enter the emerging adulthood age period, which by definition is a period of instability and exploration during which they must adjust to an unfamiliar environment that consists of different academic and social relationships, identity explorations, and possible changes in self-concept (Arnett, 2004). If these changes are negative stressors in a college student's life, this may result in poor adjustment to the new environment, the consequences of which could be poor performance in the classroom or even a loss of that student from the educational institution (e.g., Bean, 1985; Pascarella &

Terenzini, 1980; Tinto, 1975). Although many factors come together to impact adjustment to college, the purpose of this study was to examine one component of emerging adults' lives, peer relationships, to determine how these relationships affect adjustment.

In general, peers are central to adolescents' and emerging adults' lives. Erikson's theory of psychosocial development posits that the major developmental task of the early 20s is to establish close intimate relationships (Erikson, 1963). Given the importance of peers during these years, we expected that friends would play an important role in the transition into college. Researchers have documented the benefits of friendships among children and adolescents (e.g., Hartup & Stevens, 1997; Newcomb & Bagwell, 1995; Rubin, Bukowski, & Parker, 1998), particularly in a school context (see Ladd & Kochenderfer, 1996, for a review). Research on older adults also has described the benefits of friends' provisions of social support to well-being and health (e.g., Adams & Blieszner, 1995; Antonucci & Akiyama, 1995). The literature on the benefits or role of friends during emerging adulthood is not as extensive, but does indicate that peers often take over as primary attachment figures (Fraley & Davis, 1997) and play a role in need fulfillment (Carbery & Buhrmester, 1998). In a school context, peer relationships can influence student development (Chickering &

---

*Lisa Swenson is Assistant Professor of Psychology at Pennsylvania State University, Hazleton. Alicia Nordstrom is Assistant Professor of Psychology and Marnie Hiester is Associate Professor of Psychology, both at Misericordia University. This research was supported by a Faculty Research Development Grant obtained by the first author from her institution. The authors would like to thank Drs. Peter Crabb, Christopher Goguen, Justin Nordstrom, Michael Polgar, and Elizabeth Wright for their comments on versions of this manuscript.*

Reisser, 1993) and can affect students' satisfaction with an institution (Astin, 1993). Yet, as they transition from adolescence to emerging adulthood and from high school into college, many students' friendships end or at least change due to physical separations or contrasting life goals (Paul & Brier, 2001; Rose, 1984). Moreover, there may be a lag in making close friends in their new college environment. In this study, we expected that friends would play a role in adjustment to college. If friendships themselves transition, though, we expected that there would be differences in how older high school friendships versus new college friendships were associated with adjustment.

### Relationship Quality and Adjustment

Research examining relationship quality and adjustment has focused mostly on transitions into or development through middle school and high school. Researchers have defined school adjustment as "the degree to which children become interested, engaged, comfortable, and successful in the school environment" (Ladd & Kochenderfer, 1996, p. 324). Assessments of relationship quality include the use of *friendship quality* measures, which assess variables such as the extent of intimacy, validation, or conflict resolution (e.g., Bukowski, Hoza, & Boivin, 1994; Parker & Asher, 1993; Sharabany, Gershoni, & Hofman, 1981), and measures of *attachment style* between partners in the relationship. Attachment relationships are close, emotional bonds between two people, and style can be defined by measuring behaviors such as proximity seeking and comfort (Goldberg, 2000). Research has shown a connection between relationship quality and attachment such that being securely attached to a partner is associated with higher-quality relationships (Hazan & Shaver, 1987; Markiewicz, Doyle, & Brendgen, 2001). Individuals who are more securely attached are more likely to self-disclose to friends

(Mikulincer & Nachslon, 1991), report greater intimacy (Grabill & Kerns, 2000), and expect more support, trust, and acceptance from friends (You & Malley-Morrison, 2000).

There is a significant link between the quality of peer relationships and adjustment variables during the transition to high school and throughout the high school years (Demir & Urberg, 2004). Greater friendship quality was associated with greater emotional adjustment. Furthermore, attachment styles were associated with adjustment such that secure attachments were associated with fewer internalizing problems and greater self-concept.

With a focus on attachment, researchers found that attachment to one's parents, but not to one's peers, was beneficial to high school students' well-being following a stressful life event (Greenberg, Siegel, & Leitch, 1983). Although peer relationships are important aspects of adolescents' lives (e.g., see Hartup & Stevens, 1997; Newcomb & Bagwell, 1995) and adolescents spend an increasing amount of time with peers (Gavin & Furman, 1989), perhaps when they are still living at home adolescents turn to their parents for help. Once they transition into college and away from their family unit, they may start to seek support from friends to help them through big life changes, as is suggested by research on emerging adults (Fraleigh & Davis, 1997). When assessing romantic relationships among high school students, adjustment was related to the attachment style between partners. As compared to insecurely attached partners, securely attached partners were better adjusted, as indicated by lower anxiety and depression and higher perceived competence (Cooper, Shaver, & Collins, 1998).

Researchers studying emerging adults have described a significant link between the quality of college students' peer relationships and their adjustment to college (Fass & Tubman, 2002; Lapsley & Edgerton, 2002). When focusing

on attachment between peers, poor attachment was associated with lower ratings of scholastic competence (Fass & Tubman, 2002). As compared to insecure attachments, secure attachment styles were associated with better social adjustment (Lapsley & Edgerton). When focusing on social support, although students' ratings of their closest friendships were not significantly correlated with adjustment, when students assessed support received from peers more generally, the greater the support received, the better was their emotional adjustment (e.g., less anxiety, better quality of life; Abbey, Abramis, & Caplan, 1985). Furthermore, researchers reported that increased social support over the first two semesters of college predicted improved social and emotional/personal adjustment (Friedlander, Reid, Shupak, & Cribbie, 2007). This leads to the expectation of positive associations between peer attachment and academic, social, and emotional/personal adjustment among emerging adults, as is found between high school romantic partners, college peers, and parents and teenage children. It is also reasonable to expect that more supportive friendships (i.e., better quality) would be associated with better adjustment.

Another comparison of interest was the quality of students' relationships with their "old" high school best friend and their best new college friend to determine whether these relationships were associated with adjustment in the same way. Bean (1985) described that if students have greater attachments to "outsiders" then they are not likely to be as successfully socialized to the new institution, thus suggesting the importance of making friends in the new school environment. Supporting the idea of moving on to new friendships, Paul and Brier (2001) used the term "friendsickness" to describe the concept of missing old friends and found that there were negative implications of this emotional

state. Although the negative effects of friendsickness do not necessarily indicate that students should end their old friendships, it could be more evidence for the need to make new friends in a new environment to help reduce feelings of loneliness and alienation. Intimacy with friends is negatively correlated with loneliness (Wiseman, 1997), and thus we expected that lower intimacy between peers would be associated with poorer adjustment, particularly in a social and emotional/personal sense.

### **Conflict and Adjustment**

In addition to the expectation of a positive association between positive relationship features and adjustment, negative aspects of relationships may be associated with poorer adjustment. Although much research has been conducted to investigate the impact of peer conflict (e.g., disagreements, arguing, fighting) on the status or perceptions of relationships (e.g., see Collins & Laursen, 1992; Laursen, 1996), the literature on the link between conflict and adjustment is not so extensive, even though such conflict could be damaging to adjustment and success in a school environment. Among adolescents, negative friendship features such as conflict were associated with maladjustment, in terms of behavior problems and poor school grades (Berndt & Keefe, 1992; Burk & Laursen, 2005). Thus, we would expect a significant negative association between conflict and adjustment among emerging adults.

### **Purpose of the Present Study**

The main goal for this study was to describe the link between relationship quality and adjustment among first-year college students. Based on developmental research on children, adolescents and older adults, positive friendship qualities and better, more secure attachment relationships are associated with better adjust-

ment. We expected to identify a significant positive association between relationship quality and adjustment among emerging adults. A second goal was to determine how old high school friends and new college friends provided support. We expected that high school friendships could be beneficial when a student first starts college, but in order to adjust and attach to the new environment, a student must develop new intimate friendships with college peers. A third goal of our study was to compare methods of assessing relationship quality among emerging adults. By using measures of attachment, we expected to confirm previous research showing that close relationships are beneficial to adjustment during transitional periods. By using friendship quality measures, we expected to explain how and why these close relationships are beneficial by describing specific features that are associated with adjustment. We expected to find a positive association between relationship quality and adjustment when using both friendship quality and attachment measures, and we expected that the use of multiple measures would provide a more complete story about this association.

## METHOD

### Participants

A sample of 271 emerging adults in their first year of college (64% females) was selected from a larger sample of college students recruited using convenience sampling techniques for a short-term longitudinal study. Students were recruited during the first 2 weeks of fall semester classes ("Time 1" assessment) and were asked to participate again during the 11th and 12th weeks of the same fall semester ("Time 2" assessment). Inclusion criteria for the present study were freshman (first-year) status, traditional age for college freshman (age 18 or 19), and participation in both of the two

waves of data collection. The average age of participants was 18.08 years ( $SD = .27$ ). The majority of participants were Caucasian/White (87%). Other racial and ethnic groups were minimally represented, as matched the demographics of the institutions and surrounding communities.

Students who qualified for inclusion were recruited from two institutions in the north-eastern United States. Of the 271 total, 132 (66 females, 66 males) were enrolled at a branch campus of a large state university and 139 (107 females, 32 males) were enrolled at a private liberal arts university. We recruited students from two universities in order to increase our sample size, but not with the intent of comparing samples. To ensure that students at the two universities did not differ significantly on demographic variables, we conducted analyses to test for similarities. Age and racial composition of the two universities were similar and reflected population statistics from the surrounding communities. Analyses yielded a difference in sex composition, with the state university enrolling more males relative to females and the private university enrolling more females relative to males, which also reflected university population characteristics for these two institutions. Both universities were residential campuses with the majority of students living on (73.7%) or near (3.8%) campus. The remainder of students (22.5%) commuted from home, an average of 9 miles.

### Measures

The measures described below were part of a larger packet of materials completed by participants.

*Friendship Quality.* To indicate the quality of their best friendships, participants completed the Intimate Friendship Scale (IFS; Sharabany, 1994) regarding both their very best friend from high school (Time 1 and 2 assessments)

and their very best new college friend (Time 2). The IFS consists of 32 items which, according to previous factor analyses (see Sharabany) organize into eight subscales. Use of this scale in previous research with college students showed high inter-item reliability among items on each subscale (Wiseman, 1997): frankness and spontaneity ( $\alpha = .83$ ; e.g., I feel free to talk to him/her about almost everything); sensitivity and knowing ( $\alpha = .80$ ; e.g., I know how he/she feels about things without him/her telling me); attachment ( $\alpha = .81$ ; e.g., I feel close to him/her); exclusiveness ( $\alpha = .76$ ; e.g., I do things with him/her which are quite different from what others do); giving and sharing ( $\alpha = .76$ ; e.g., When something nice happens to me I share

the experience with him/her); imposition ( $\alpha = .70$ ; e.g., If I want him/her to do something for me all I have to do is ask); common activities ( $\alpha = .63$ ; e.g., I like to do things with him/her); and trust and loyalty ( $\alpha = .67$ ; e.g., I know that whatever I tell him/her is kept secret between us). Participants rated items using a 7-point scale to indicate the degree to which each statement described the relationship with their best friend (1 = "This sentence does not describe your relationship at all"; 7 = "This sentence describes your relationship very well"). For data analyses, we created eight subscale scores by averaging ratings for the four items that composed each subscale (see Table 1 for mean ratings and reliability statistics for subscales). We used the

TABLE 1.

Means, Standard Deviations, and Cronbach's Alpha Reliability Statistics for Relationship Quality Scales

	T1 – High School Best Friend			T2 – High School Best Friend			T2 – College Best Friend		
	$\alpha$	<i>M</i>	<i>SD</i>	$\alpha$	<i>M</i>	<i>SD</i>	$\alpha$	<i>M</i>	<i>SD</i>
<i>Intimate Friendship Scale</i>									
Frankness & Spontaneity	.83	6.08	0.96	.89	5.94	1.20	.83	5.53	1.22
Sensitivity & Knowing	.80	6.03	0.94	.89	5.89	1.19	.82	5.36	1.23
Attachment	.74	5.53	1.16	.79	5.38	1.38	.78	4.75	1.36
Exclusiveness	.54	4.61	1.06	.71	4.53	1.37	.61	3.91	1.20
Giving & Sharing	.80	5.92	1.00	.85	5.83	1.17	.79	5.54	1.12
Imposition	.74	5.56	1.06	.84	5.46	1.31	.76	4.98	1.26
Common Activities	.66	5.50	1.05	.83	4.96	1.45	.72	4.89	1.23
Trust & Loyalty	.76	6.17	0.94	.84	6.05	1.20	.76	5.78	1.14
<i>Quality of Relationships Inventory</i>									
Conflict Subscale	.85	1.47	0.36	.88	1.50	.47	.83	1.35	0.35
<i>Inventory of Peer Attachment</i>									
Trust	.90	4.37	0.58						
Communication	.86	3.94	0.69						
Alienation	.69	3.86	0.58						

*Note.* Means represent the average rating of all subscale items.

eight subscale scores rather than an overall average or total score so that we could examine the specific aspects of relationships that are associated with adjustment.

*Peer Attachment.* To indicate the quality of the attachment with their best friends, participants completed the Inventory of Peer Attachment, part of the larger Inventory of Parent and Peer Attachment (Armsden & Greenberg, 1987). The Inventory of Peer Attachment is 25 items long, organized into three subscales, which, according to previous factor analyses display high inter-item reliability (see Armsden & Greenberg): trust ( $\alpha = .91$ ; e.g., My friends accept me as I am.); communication ( $\alpha = .87$ ; e.g., My friends encourage me to talk about my difficulties.); and alienation ( $\alpha = .72$ ; e.g., My friends don't understand what I am going through these days.). Items are rated on a scale from 1 (*almost never or never true*) to 5 (*almost always or always true*) to indicate the extent to which each statement is true about the relationship with one's friends. For data analyses, we computed three subscale scores to represent the average ratings of the 10 trust items ( $\alpha = .90$ ), 8 communication items ( $\alpha = .86$ ), and 7 alienation items ( $\alpha = .69$ ). We used subscale scores in analyses, rather than a total attachment score, so that we could examine how specific aspects of close friendships are associated with adjustment (see Table 1 for mean ratings for each subscale).

*Attachment Style.* To indicate general attachment style with friends, participants completed the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991). For this measure, participants read through four paragraphs, each describing a different style, and they selected the paragraph that best described themselves. The four attachment styles represented are: secure (characterized by comfort with both intimate relationships and autonomy), fearful-avoidant (characterized by

a fear of intimacy, which leads to avoidant behaviors), preoccupied (overinvolvement or preoccupation with an intimate relationship), and dismissing-avoidant (dismissing of the importance of intimate relationships; Bartholomew & Horowitz). Validity of the attachment styles was established by comparing ratings of style with ratings of other self-report self-concept measures. For data analysis, attachment style was represented as a categorical variable.

*Conflict.* To indicate the extent to which conflict was present in their relationships with best friends, participants completed the conflict subscale of the Quality of Relationships Inventory (QRI, Pierce, Sarason, & Sarason, 1991). The QRI conflict subscale consists of 14 items for which participants rate the degree to which the relationship is a source of conflict (e.g., "How often do you have to work hard to avoid conflict with this person?"). Items are rated on a 4-point scale ranging from "*not at all*" to "*very much*." In previous research, the conflict subscale displayed high reliability among item ratings ( $\alpha = .91$ ; Pierce et al.). For data analyses, we computed an average conflict score by averaging the ratings of all 14 conflict items (see Table 1 for mean ratings and reliability statistics).

*Adjustment.* We assessed four types of adjustment to college (academic, social, emotional/personal, and institutional attachment) using the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984). The SACQ consists of 67 items with 8 of the items contributing to both the social adjustment and institutional attachment subscales. Participants rate each item on a 9-point scale ranging from "*applies very closely to me*" to "*doesn't apply to me at all*" to indicate the degree to which the statement was true for them at the time of assessment (Time 2). Baker and Siryk (1999) summarized the psychometric properties of the SACQ and reported high reliability for all subscales: academic

adjustment (24 items,  $\alpha$  range = .81 to .90; e.g., “I am satisfied with the level at which I am performing academically”); social adjustment (20 items,  $\alpha$  range = .83 to .91; e.g., “I am meeting as many people and making as many friends as I would like at college.”); emotional/personal adjustment (15 items,  $\alpha$  range = .77 to .86; e.g., “I have been feeling tense or nervous lately.”); and institutional attachment (15 items,  $\alpha$  range = .85 to .91; e.g., “I expect to stay at college for a bachelor’s degree.”). For data analyses, we created four subscale scores by averaging the ratings for the items that comprised each subscale.

## Procedure

We recruited participants using convenience sampling techniques. During the first and second weeks of the fall semester we visited 19 sections of English composition courses at one university and 13 sections of History courses at the second university because these courses were taken by the majority of first-year students and were general education core requirements for all students. We explained the general purpose of the study and distributed consent forms to review with the students. To students who consented to participate, we gave a questionnaire booklet to complete on their own time outside of the classroom and asked them to return it within 1 week.

In total, 488 students (257 from the state university, 231 from the liberal arts university) agreed to participate and completed the questionnaire booklets for the Time 1 assessment, including completion of the IFS and QRI–Conflict in regards to their best high school friend and the IPPA and RQ regarding their friendships in general. Ten weeks later, we visited the same classes to follow up with the 488 students who completed the questionnaires at Time 1 and asked them to complete a second booklet of questionnaires. We gave students 1 week to complete and return the

second set of questionnaires. Of the 488, 321 completed and returned the Time 2 booklets (66% participation rate). Of these participants, 271 (132 from the state university, 139 from the liberal arts university) met criteria for inclusion in our sample due to their age and class status. During Time 2, participants completed the IFS and QRI–Conflict regarding their best high school and best college friend, as well as the SACQ.

## RESULTS

Data analyses addressed the following research hypotheses: (a) The quality of peer relationships would be positively associated with adjustment to college (academic, social, emotional/personal, and institutional attachment) among first-year college students; (b) The association between friendship quality and adjustment would differ when assessing relationships with best high school friends versus best new college friends; (c) Measures of friendship quality and peer attachment among college friends would consistently yield positive associations with all forms of adjustment.

### Preliminary Analyses

Because data were collected from students at two separate institutions, we conducted all data analyses with institution (public, private) as a covariate. Results were identical to results from analyses without the institution variable, thus we report results from the aggregate sample.

Previous research has suggested that females report significantly closer peer relationships than do males (e.g., Sharabany et al., 1981), and one-way analyses of variance confirm this sex difference with the IFS subscales. We conducted all analyses with sex (male, female) as a covariate to test for an effect for sex in adjustment outcomes. Results were identical to results from analyses without the

TABLE 2.  
Associations Among Friendship Quality with High School Best Friend  
(Time 1 Assessment) and Adjustment to College

	Student Adaptation to College Questionnaire			
	Academic Adjustment	Social Adjustment	Emotional/Personal Adjustment	Institutional Attachment
<i>Intimate Friendship Scale (T1)</i>				
Frankness & Spontaneity	.11	.13	.15*	.15*
Sensitivity & Knowing	.00	-.00	-.08	-.06
Attachment	-.06	-.11	-.08	-.10
Exclusiveness	-.10	-.03	-.09	-.05
Giving & Sharing	.07	.02	.06	.12
Imposition	.10	-.01	.11	-.04
Common Activities	-.12	.05	-.02	.02
Trust & Loyalty	.08	.03	-.02	-.02
<i>R</i> <sup>2</sup> for Overall Regression Model	.12***	.07*	.07*	.07*
<i>Quality of Relationships Scale (T1)</i>				
Conflict Subscale	-.29***	-.18**	-.18**	-.26***

Note. Numbers in table represent unique contributions of predictors to  $R^2$  (semipartial correlations,  $s^2$ ) in their respective regression models.

\* $p < .03$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

sex variable, thus we report results without discussion of sex.

Due to the high number of subscales of the IFS, we examined multicollinearity diagnostics within the regression models that follow to ensure that the variance accounted for was not inflated due to a high degree of overlap among the subscales. The variance inflation factors (VIF) indicated that multicollinearity was not present among our data.

### Friendship Quality and Adjustment

We conducted standard multiple regression analyses to test the hypothesis of a positive association between friendship quality and adjustment. We used ratings for the IFS

subscales as predictor variables and ratings for the SACQ as outcome or dependent variables. First, we conducted analyses involving ratings of the relationship with one's best high school friend at the beginning of the students' first college semester (Time 1). Four linear regression analyses were computed to assess associations among the eight IFS subscales with each of the four SACQ subscales. Because of the high number of comparisons in the regression analyses, we adopted a more conservative alpha value of .03.

As expected, the total contribution of all IFS subscales were significant predictors of each of the four types of adjustment (see Table 2 for  $R^2$  and associated values). When exam-

ining each predictor individually, ratings of frankness and spontaneity items were positively associated with both emotional/personal adjustment and institutional attachment (see Table 2), meaning that greater frankness and spontaneity between friends was associated with better adjustment.

We conducted another set of standard multiple regression analyses to see whether one’s best high school friend continued to benefit adjustment later in a student’s first semester. In four regression analyses, we compared IFS subscale ratings of the quality of the relationship with one’s high school best friend during Time 2 assessment to adjustment (SACQ subscales). Similar to analyses with Time 1 data, as expected the total contribution

of all IFS subscales were significant predictors of each of the four types of adjustment (see Table 3 for  $R^2$  and associated values). Results differed, though, when we examined individual friendship qualities in association with adjustment. Greater exclusivity with one’s best high school friend was significantly associated with poorer academic and social adjustment and poorer institutional attachment (see Table 3). Higher ratings on the imposition subscale (indicating a good and close relationship) were associated with better emotional/personal adjustment (see Table 3). Finally, higher ratings for the common activities subscale were associated with greater institutional attachment (see Table 3).

Next, we conducted standard multiple

TABLE 3.  
 Associations Among Friendship Quality with High School Best Friend  
 (Time 2 Assessment) and Adjustment to College

	Student Adaptation to College Questionnaire			
	Academic adjustment	Social adjustment	Emotional/ personal adjustment	Institutional attachment
<i>Intimate Friendship Scale (T2)</i>				
Frankness & Spontaneity	−.01	.01	−.01	.02
Sensitivity & Knowing	.03	.06	−.00	−.01
Attachment	.03	−.04	−.10	−.00
Exclusiveness	−.17**	−.16*	−.13	−.19**
Giving & Sharing	−.07	−.11	.04	−.08
Imposition	.08	.14*	.14*	.07
Common Activities	.02	.12	.06	.19**
Trust & Loyalty	.16*	.09	.06	.11
$R^2$ for Overall Regression Model	.10**	.12**	.10*	.10**
<i>Quality of Relationships Scale (T2)</i>				
Conflict Subscale	−.23***	−.18**	−.27***	−.23**

Note. Numbers in table represent unique contributions of predictors to  $R^2$  (semipartial correlations,  $sr^2$ ) in their respective regression models.

\*  $p < .03$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

TABLE 4.  
Associations Among Friendship Quality with New Best College Friend and  
Adjustment to College

	Student Adaptation to College Questionnaire			
	Academic Adjustment	Social Adjustment	Emotional/ Personal Adjustment	Institutional Attachment
<i>Intimate Friendship Scale</i>				
Frankness & Spontaneity	.07	.03	.03	.03
Sensitivity & Knowing	.02	.09	.06	-.02
Attachment	-.11	-.03	-.17*	-.08
Exclusiveness	-.02	.00	-.01	-.07
Giving & Sharing	-.06	-.07	.03	-.05
Imposition	.02	-.02	.04	.03
Common Activities	.02	.15*	.03	.21**
Trust & Loyalty	.16*	.10	.01	.11
<i>R</i> <sup>2</sup> for Overall Regression Model	.10**	.17***	.05	.14***
<i>Quality of Relationships Scale</i>				
Conflict Subscale	-.27***	-.20**	-.17*	-.26***

Note. Numbers in table represent unique contributions of predictors to *R*<sup>2</sup> (semipartial correlations, *sr*<sup>2</sup>) in their respective regression models.

\**p* < .03. \*\**p* < .01. \*\*\**p* < .001.

regression analyses to compare ratings of the relationship with one's best college friend to ratings of adjustment. We conducted four regression analyses with the eight IFS subscales (college friend, Time 2) and each of the four SACQ subscales. Supporting the hypothesis of a positive association between friendship quality and adjustment, three of the four regression models revealed that friendship quality was significantly associated with adjustment (see Table 4), the exception being the model predicting emotional/personal adjustment. Upon examining the individual contributions of each IFS subscale, ratings of common activities shared between friends were positively associated with both social adjust-

ment and institutional attachment (see Table 4), meaning that having more activities and interests in common was associated with better adjustment. Moreover, greater trust and loyalty between friends was associated with better academic adjustment (see Table 4).

### Attachment and Adjustment

To test the hypothesis of a consistent positive association with adjustment when using either friendship quality or attachment measures, we conducted another set of standard multiple regression analyses to compare ratings of the Peer Attachment scale of the IPPA and ratings of items on the SACQ. We conducted four regression analyses with the three peer attach-

ment subscales as predictor variables and each of the four SACQ subscales as outcome or dependent variables. Results revealed that the total contribution of all the peer attachment subscales was a significant predictor of each of the four types of adjustment (see Table 5). Upon examining the individual contributions of each peer attachment subscale, greater alienation from peers was associated with poorer adjustment (all four forms; see Table 5). Furthermore, ratings of trust were significantly associated with social adjustment and institutional attachment such that greater trust of peers was associated with better adjustment (see Table 5).

As another test of the association between attachment and adjustment, we conducted a general linear model analysis to assess the association between self-ratings of attachment style (from the RQ) and the subscales of the SACQ. In the overall model, attachment style was associated with adjustment at the multivariate level, Wilks'  $\Lambda = .88$ ,  $F(12, 537) = 2.29$ ,  $p < .01$ ,  $\eta^2 = .04$ , and univariate level for social adjustment,  $F(3, 206) = 2.66$ ,  $p < .05$ ,

$\eta^2 = .04$ , and emotional/personal adjustment,  $F(3, 206) = 4.82$ ,  $p < .01$ ,  $\eta^2 = .07$ . Upon examining post-hoc follow-up analyses, we discovered that individuals who rated themselves as securely attached had significantly better emotional/personal adjustment than did individuals who were "disorganized" in their attachments. Individuals who were disorganized also differed significantly in their emotional/personal adjustment from those who were avoidant (see Table 6).

Conflict and Adjustment

Based on our hypothesis of a positive association between friendship quality (positive aspects of relationships) and adjustment, we expected ratings of conflict to be negatively associated with adjustment. We conducted correlational analyses to compare ratings of the QRI–Conflict subscale regarding one's best high school friend (Time 1 and Time 2) and one's best college friend (Time 2) to ratings of the four SACQ subscales. Supporting our hypothesis, results of these analyses revealed that conflict with both high school and college

TABLE 5.  
Associations Among Attachment Behaviors and Adjustment to College

	Student Adaptation to College Questionnaire			
	Academic Adjustment	Social Adjustment	Emotional/Personal Adjustment	Institutional Attachment
<i>Inventory Of Peer Attachment</i>				
Peer Trust	.07	.13*	.11	.13*
Peer Communication	.00	.02	-.12	-.04
Peer Alienation <sup>a</sup>	.22***	.17**	.29***	.19**
<i>R<sup>2</sup> for Overall Regression Model</i>	.12***	.15***	.15***	.12***

Note. Numbers in table represent unique contributions of predictors to  $R^2$  (semipartial correlations,  $s^2$ ) in their respective regression models.

<sup>a</sup> Alienation items were reverse-scored. Thus, higher scores indicate lesser alienation.

\* $p < .03$ . \*\* $p < .01$ . \*\*\*  $p < .001$ .

TABLE 6.  
Attachment Style and Adjustment to College

Attachment Style	Adjustment							
	Academic		Social		Emotional/ Personal		Institutional	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Secure	51.61	11.02	50.74	8.87	50.91 <sub>a</sub>	9.65	49.44	10.65
Anxious–Resistant	51.68	8.03	47.23	10.57	48.13	7.88	48.23	9.48
Avoidant	51.59	11.60	49.44	8.56	49.78 <sub>b</sub>	10.71	49.53	7.68
Disorganized	48.52	7.05	46.04	7.21	43.26 <sub>a,b</sub>	4.67	47.57	7.72

*Note.* Means in a column sharing subscripts are significantly different,  $p < .05$ , according to the Tukey honestly significant difference comparison. For all adjustment categories, higher means indicate better adjustment.

friends was significantly associated with all forms of adjustment, such that a greater presence of conflict was associated with poorer adjustment to college (see Tables 2, 3, and 4).

## DISCUSSION

The major goal of this study was to describe the association between relationship quality and adjustment among college students. The literature on this topic is small, and with growing concern about retention of students on college campuses we sought to provide some useful information for campus personnel who can assist students as they adjust to this new environment and the emerging adulthood phase of life.

### Relationship Quality and Adjustment

We began with an assessment of friendship quality and compared ratings of positive aspects of relationships to several types of college adjustment, including academic, social, emotional/personal, and institutional attachment. Consistent with research documenting the benefits of friendships during childhood

and adolescence (e.g., see Hartup & Stevens, 1997; Newcomb & Bagwell, 1995; Rubin et al., 1998) and older adulthood (e.g., see Adams & Blieszner, 1995; Antonucci & Akiyama, 1995), we found that, during the first few weeks of a college student's first semester, the relationship with one's best high school friend is important because this friend is someone with whom the new college student can be open or frank. Having an old familiar friend to turn to when in need of peer support was related to both emotional/personal adjustment and institutional attachment. These results are similar to other research on college students that describes a positive association between social support and emotional well-being (Abbey et al., 1985). Moreover, results are consistent with research on younger adolescents describing that better-quality friendships are associated with fewer internalizing problems or better emotional adjustment (Cooper et al., 1998; Demir & Urberg, 2004; Rubin et al., 2004). Perhaps it is the case that venting about stressors helps the new college student to not only lessen the likelihood of poor emotional coping but also to feel better about being in

the new college environment and, thus, more attached to the institution itself.

Later into a college student's first semester, the role of the relationship with one's best high school friend changed with regard to adjustment. Our results suggest that it is important for a new college student to no longer be in an exclusive relationship with his/her best high school friend. It still may be helpful to know this friend will be loyal and would be there if needed without it being an imposition. However, in order to really attach to the new environment and adjust socially, as is suggested by results of analyses of ratings of college friendships, making new college friends is important to adjustment.

These results support Bean's (1985) findings that socialization is not as successful if students are more attached to individuals outside the institution as opposed to those within. The different role of high school friends in the life of college students who are into the third month in their new environment also seems similar to literature describing the functions of friendships in older adulthood. Carstensen's (1987, 1992) socioemotional selectivity theory describes that as adults age into their later years they become more selective about the relationships that they maintain. Older adults retain the relationships that provide them with the most support, whether it is perceived or enacted support. Perhaps this filtering out process also takes place with high school friends, especially as college students encounter new peers in their new environment from whom they may be able to connect to draw support.

As expected, the new college friendships that are forming play a different role than do high school friendships. The pattern of results regarding best college friendships suggests that academic and social adjustment and institutional attachment are associated with finding a person who will be loyal and who shares

common interests. These results are similar to research that shows that having friends to spend time with is positively correlated with satisfaction with student life (Astin, 1993). Our data expand on this by revealing that knowledge that there is a friend available when needed may be enough to help students adjust and commit to this new environment. The importance of loyal peers is characteristic of the adolescent age period (see Hartup, 1993; Laursen, 1996; Sullivan, 1953) and continues to be important among emerging adults, as suggested by our data. That trust and loyalty of new college friends was significantly related to academic adjustment could suggest that if a college student can successfully make new friends who will be loyal and trustworthy, this can help them maintain some focus on academics and thus experience better adjustment in this area.

In addition to assessing the link between friendship quality and adjustment for high school and college best friendships, we expected that adjustment would be positively associated with measures of attachment. In measuring attachment with friends in general rather than attachment to one's specific best friend, greater feelings of alienation from peers was associated with poor academic and emotional/personal adjustment. This suggests that an insufficient number of friends may be related to a diminished ability to concentrate on academic work. Moreover, our results are consistent with research describing a link between loneliness, social anxiety, or insecure attachment styles and internalizing problems, such as depression (e.g., La Greca & Harrison, 2005; Lopez, Mitchell, & Gormley, 2002). However, if a new college student has a friend who will be there for support or to show understanding, this is associated with better social adjustment and attachment to the institution.

Our assessment of attachment also included a comparison of attachment style with

adjustment outcomes. Results were consistent with previous findings described that closer relationships are associated with better emotional/personal adjustment and that less security in relationships is associated with poorer adjustment. These results are consistent with previous research focusing on children and adolescents (e.g., Cooper et al., 1998; Greenberg et al., 1983), and college students (Fass & Tubman, 2002; Lapsley & Edgerton, 2002).

### Conflict and Adjustment

Another assessment was of negative friendship quality, specifically conflict. When we examined the link between conflict and adjustment, we found that if there was conflict, this was associated with poorer adjustment in all areas, which is consistent with results from previous research on young children (Ladd, Kochenderfer, & Coleman, 1996). Although our data do not allow for conclusions about a causal relationship between conflict and adjustment, a possibility for future research would be to determine whether the conflict occurs first. If it does, then perhaps this is related to diminished ability to concentrate on adjusting to new academic demands, to make new friends, or to attach oneself to the new college environment. Research on social support suggests that a good support network can serve as a buffer against stressors and is associated with better mental and emotional health (e.g., Abbey et al., 1985; Adams & Blieszner, 1995; Buhrmester, 1990). If a student is in conflict with peers, this could limit the size of his/her support network and, thus, adjustment may suffer.

### Applications of this Research

Taking all of these findings into consideration, the picture is clear: Relationship quality is positively and significantly associated with adjustment among first-year college students who are in their emerging adulthood years.

Given the specific friendship qualities that we identified in relation to the specific types of adjustment, this study should be useful to college personnel who may wish to intervene to help new students adjust to the college environment. For example, providing opportunities for peer interaction and friendship formation seems crucial to helping students adjust to their new environment. It also could be beneficial to recognize the importance of high school friendships during the initial weeks of a student's first semester. Counselors could help new students learn how to balance time with "old" friends back home and time with new peers in the new college setting.

Another strategy for intervention could be to use assessments of relationship quality to identify at-risk students who have the potential to be lost from the system. Although it seems that the measures are consistent in describing a positive association between relationship quality and adjustment, we recommend that researchers or college personnel who are interested in studying this link utilize a measure that can provide a more detailed analysis of peer relationships, such as the friendship quality measure utilized in this study (Intimate Friendship Scale, Sharabany, 1994).

### Limitations and Recommendations for Future Research

We hope that this study may inspire the growth of research on the role of peer relationships in the lives of emerging adults. Although our results show only small amounts of variance in adjustment accounted for by relationship quality, the fact that the contributions were significant and supported our hypotheses based on previous research suggests that peer relationships do have a significant effect on adjustment and should be studied further. Given all the transitions that these individuals experience, having a supportive

network of peers should benefit them in many ways.

Future research could explore other outcome variables that are associated with the success or failure of close peer relationships. In this study we only assessed types of adjustment. We encourage researchers to move forward to examine how peer relationships and adjustment are associated with additional outcomes such as academic achievement and overall retention in college, or whether other variables such as self-esteem, mental health, or high school academic achievement might mediate the association between relationship quality and adjustment or college achievement.

We also encourage researchers to consider other methods of assessing peer relationships to understand better the links between specific relationship qualities and outcomes such as adjustment. Although the self-report measures that we selected for this study were previously reported to be reliable and valid, we did discover several low Cronbach's alpha statistics when assessing reliability of subscales ( $r$ 's ranged from .54 to .90). We chose to report results despite lower reliabilities in order to make comparisons with previous research using these measures. Given that we found some consistent patterns of results across measures, this could suggest that the low reliabilities did not have an impact. However, we recommend that future research consider different self-report measures of friendship quality to determine whether a similar pattern of results still emerges. Moreover, we suggest extending the literature by using different forms of measurement to further analyze how

peer relationships affect adjustment. For example, examining verbal communications between peers could provide insight into how peers provide support, or interviews with students might uncover what makes friends trustworthy.

In addition to considering different measurement techniques, researchers may also wish to replicate this research with different samples to determine the generalizability of results. We used convenience sampling to recruit students for this study. It may be informative to use random sampling techniques to generate a sample from different types of universities and colleges or to compare students at different institutions (e.g., community colleges vs. large research universities; campuses in urban areas vs. rural).

## Conclusions

Peer relationships are an integral part of adolescents' and emerging adults' lives. In this study, we identified specific ways in which close peer relationships are associated with adjustment to college. Maintaining ties with high school friends can help a new college student adjust during the initial transition period, but it is also important for these college students to make new friends in their new environment if they want to improve their chances of success. Given the serious implications of failure in college, this study provides empirical evidence for the importance of friendships in the transition to college.

---

*Correspondence concerning this article should be addressed to Lisa Swenson, Penn State Hazleton, 76 University Drive, Hazleton, PA 18202; Lms42@psu.edu*

## REFERENCES

- Abbey, A., Abramis, D. J., & Caplan, R. D. (1985). Effects of different sources of social support and social conflict on emotional well-being. *Basic and Applied Social Psychology*, 6, 111–129.
- Adams, R. G., & Blieszner, R. (1995). Aging well with friends and family. *American Behavioral Scientist*, 39, 209–224.
- Antonucci, T. C., & Akiyama, H. (1995). Convoys of social relations: Family and friendships within a life span context. In R. Blieszner & V.H. Bedford (Eds.), *Handbook of aging and the family* (pp. 355–371). Westport, CT: Greenwood Press.
- Armsden, G. C., & Greenberg, M. T. (1987). The Inventory of Parent and Peer Attachment: Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence*, 16, 427–454.
- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. New York: Oxford University Press.
- Astin, A. W. (1993). *What matters in college? Four critical years revisited*. San Francisco: Jossey-Bass.
- Baker, R. W., & Siryk, B. (1984). Measuring adjustment to college. *Journal of Counseling Psychology*, 31, 179–189.
- Baker, R. W., & Siryk, B. (1999). *Student Adaptation to College Questionnaire manual*. Los Angeles: Western Psychological Services.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226–244.
- Bean, J. P. (1985). Interaction effects based on class level in an explanatory model of college student dropout syndrome. *American Educational Research Journal*, 22, 35–64.
- Berndt, T. J., & Keefe, K. (1992). Friends' influence on adolescents' perceptions of themselves at school. In D. G., Schunk & J. L. Meece (Eds.), *Student perceptions in the classroom*. Hillsdale, NJ: Laurence Erlbaum.
- Buhrmester, D. (1990). Intimacy of friendship, interpersonal competence, and adjustment during preadolescence and adolescence. *Child Development*, 61, 1101–1111.
- Bukowski, W. M., Hoza, B. & Boivin, M. (1994). Measuring friendship quality during pre- and early adolescence: The development of psychometric properties of the Friendship Qualities Scale. *Journal of Social and Personal Relationships*, 11, 471–484.
- Burk, W. J., & Laursen, B. (2005). Adolescent perceptions of friendship and their associations with individual adjustment. *International Journal of Behavioral Development*, 29, 156–164.
- Carbery, J., & Buhrmester, D. (1998). Friendship and need fulfillment during three phases of young adulthood. *Journal of Social and Personal Relationships*, 15(3), 393–409.
- Carstensen, L. L. (1987). Age-related changes in social activity. In L.L. Carstensen & B. A. Edelstein (Eds.), *Handbook of clinical gerontology* (pp. 222–237). Elmsford, NY: Pergamon Press.
- Carstensen, L. L. (1992). Social and emotional patterns in adulthood: Support for socioemotional selectivity theory. *Psychology and Aging*, 7, 331–338.
- Chickering, A. W., & Reisser, L. (1993). *Education and identity* (2nd ed.). San Francisco: Jossey-Bass.
- Collins, W. A., & Laursen, B. (1992). Conflict and relationships during adolescence. In C. U. Shantz & W. W. Hartup (Eds.), *Conflict in child and adolescent development* (pp. 216–241). New York: Cambridge University Press.
- Cooper, M. L., Shaver, P. R., & Collins, N. L. (1998). Attachment styles, emotion regulation, and adjustment in adolescence. *Journal of Personality and Social Psychology*, 74, 1380–1397.
- Demir, M., & Urberg, K. A. (2004). Friendship and adjustment among adolescents. *Journal of Experimental Child Psychology*, 88, 68–82.
- Erikson, E. H. (1963). *Childhood and society*, (2nd ed.). New York: W.W. Norton.
- Fass, M. E., & Tubman, J. G. (2002). The influence of parental and peer attachment on college students' academic achievement. *Psychology in the Schools*, 39, 561–573.
- Frable, R. C., & Davis, K. E. (1997). Attachment formation and transfer in young adults' close friendships and romantic relationships. *Personal Relationships*, 4, 131–144.
- Friedlander, L. J., Reid, G. J., Shupak, N., & Cribbie, R. (2007). Social support, self-esteem, and stress as predictors of adjustment to university among first-year undergraduates. *Journal of College Student Development*, 48, 259–274.
- Gavin, L. A., & Furman, W. (1989). Age differences in adolescents' perceptions of their peer groups. *Developmental Psychology*, 25, 827–834.
- Goldberg, S. (2000). *Attachment and development*. London: Arnold.
- Grabill, C. M., & Kerns, K. A. (2000). Attachment style and intimacy in friendship. *Personal Relationships*, 7, 363–378.
- Greenberg, M. T., Siegel, J. M., & Leitch, C. J. (1983). The nature and importance of attachment relationships to parents and peers during adolescence. *Journal of Youth and Adolescence*, 12, 373–386.
- Hartup, W. W. (1993). Adolescents and their friends. In B. Laursen (Ed.), *Close friendships in adolescence* (pp. 3–22). San Francisco: Jossey-Bass.
- Hartup, W. W., & Stevens, N. (1997). Friendship and adaptation in the life course. *Psychological Bulletin*, 121, 355–370.
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524.
- Ladd, G. W., & Kochenderfer, B. J. (1996). Linkages between friendship and adjustment during early school transitions. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence* (pp. 322–345). New York: Cambridge University Press.
- Ladd, G. W., Kochenderfer, B. J., & Coleman, C. C. (1996). Friendship quality as a predictor of young children's early school adjustment. *Child Development*, 67, 1103–1118.
- La Greca, A. M., & Harrison, H. M. (2005). Adolescent peer relations, friendships, and romantic relationships: Do they predict social anxiety and depression? *Journal of Clinical Child and Adolescent Psychology*, 34, 49–61.

- Lapsley, D. K., & Edgerton, J. (2002). Separation-individuation, adult attachment style, and college adjustment. *Journal of Counseling and Development, 80*, 484-492.
- Laursen, B. (1996). Closeness and conflict in adolescent peer relationships: Interdependence with friends and romantic partners. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence* (pp. 186-212). New York: Cambridge University Press.
- Lopez, F. G., Mitchell, P., & Gormley, B. (2002) Adult attachment orientations and college student distress: Test of a mediational model. *Journal of Counseling Psychology, 49*, 460-467.
- Markiewicz, D., Doyle, A. B., & Brendgen, M. (2001). The quality of adolescents' friendships: Associations with mothers' interpersonal relationships, attachments to parents and friends, and prosocial behaviors. *Journal of Adolescence, 24*, 429-445.
- Mikulincer, M., & Nachslon, O. (1991). Attachment styles and patterns of self-disclosure. *Journal of Personality and Social Psychology, 61*, 321-331.
- Newcomb, A. F., & Bagwell, C. L. (1995). Children's friendship relations: A meta-analytic review. *Psychological Bulletin, 117*, 306-347.
- Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology, 29*, 611-621.
- Pascarella, E. T., & Terenzini, P. T. (1980). Predicting freshman persistence and voluntary dropout decisions form a theoretical model. *Journal of Higher Education, 51*, 61-95.
- Paul, E. L., & Brier, S. (2001). Friendsickness in the transition to college: Precollege predictors and college adjustment correlates. *Journal of Counseling and Development, 79*, 77-89.
- Pierce, G. R., Sarason, I. G., & Sarason, B. R. (1991). General and relationship-based perceptions of social support: Are two constructs better than one? *Journal of Personality and Social Psychology, 61*, 1028-1039.
- Rose, S. M. (1984). How friendships end: Patterns among young adults. *Journal of Social and Personal Relationships, 1*, 267-277.
- Rubin, K. H., Bukowski, W., & Parker, J. G. (1998). Peer interactions, relationships, and groups. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology: Vol. 3 Social, emotional, and personality development* (5th ed., pp. 619-683). New York: John Wiley & Sons.
- Rubin, K. H., Dwyer, K. M., Booth-LaForce, C., Kim, A. H., Burgess, K. B., & Rose-Krasnor, L. (2004). Attachment, friendship, and psychosocial functioning in early adolescence. *Journal of Early Adolescence, 24*, 326-356.
- Sharabany, R. (1994). Intimate Friendship Scale: Conceptual underpinnings, psychometric properties and construct validity. *Journal of Social and Personal Relationships, 11*, 449-469.
- Sharabany, R., Gershoni, R., & Hofman, J. E. (1981). Girlfriend, boyfriend: Age and sex differences in intimate friendship. *Developmental Psychology, 17*, 800-808.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York: W.W. Norton.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*, 89-125.
- Wiseman, H. (1997). Interpersonal relatedness and self-definition in the experience of loneliness during the transition to university. *Personal Relationships, 4*, 285-299.
- You, H. S., & Malley-Morrison, K. (2000). Young adult attachment styles and intimate relationships with close friends. *Journal of Cross-Cultural Psychology, 31*, 528-534.