Positive Social Support, Negative Social Exchanges, and Suicidal Behavior in College Students

Jameson K. Hirsch, PhD; Alison L. Barton, PhD

Abstract. **Objective**: Risk for suicide is often higher among college students, compared to same-age noncollegiate peers, and may be exacerbated by quality of social support and interactions. The authors examined the independent contributions of positive social support and negative social exchanges to suicide ideation and attempts in college students. **Participants**: Participants were 439 volunteer undergraduate students, who were primarily female (71%). **Methods**: Cross-sectional, survey design. Participants completed measures assessing positive social support, including emotional, informational, and tangible support; negative social exchanges; and suicidal behavior, including ideation and attempts. **Results**: Positive social support, particularly tangible support, and negative social exchanges were significantly predictive of greater suicidal behavior. **Conclusions**: Practical manifestations of support may buffer against suicide risk for college students, whereas conflict-based interactions may contribute to increased risk. At the institutional, parental, and peer levels, promotion of supportive relationships may be an important suicide prevention strategy.

Keywords: college students, negative social exchange, social support, suicide

S uicide is a significant public health problem for individuals during late adolescence and early adulthood[1,2] and a major contributor to years of potential life lost before age 65.[3] A growing body of literature suggests that persons in this age group attending college may be exposed to a unique set of transitional risk factors, such as disruptions to social support systems, which predispose them to increased risk for suicide.[4]

For young adults attending college, suicide is the second leading cause of death[5] and risk for suicide ideation may be greater than for same-age peers not attending college.[6] In a national study, 9.5% of college students had serious thoughts of suicide, and 1.5% reported making a suicide attempt.[7] Other studies suggest that up to 30% of college students experience suicide ideation and as many as 8% to 15% of college students in the United States report acting on their thoughts of suicide.[8–11] It is important to note, however, that some research suggests that college students are at reduced risk for suicide when compared to age- and gender-matched noncollegiate peers, possibly due to increased availability of support resources in the college setting.[12,13] Further, rates of college suicide have declined over the last several decades, and college counseling centers appear to be effective at reducing suicide rates on college campuses.[14]

To a great extent, effectiveness of collegiate suicide prevention programs is dependent on the successful mitigation of risk factors and risk markers for suicide ideation in college students.[15] Negative life events, hopelessness, and depression are significantly associated with suicide in college students.[6] Elements of the college "experience" itself also have the potential to become risk factors, including changes in role responsibilities, academic demands, career indecision, financial pressures, and loneliness and separation from traditional support networks.[16–18]

Transition theory suggests that support from family, friends, intimates, and institutions may mitigate the distress associated with the alteration in routines and roles that often accompanies change, such as college attendance.[19] Further, social support can serve several functions, among which are the contribution of aid and promotion of supportive affective or affirming emotional exchanges.[19] Aiding another might include provision of something tangible (eg, buying lunch) or delivery of information intended to assist with problem-solving or decision-making (eg, providing the phone number of a counseling center). Affective and affirming social support may take the form of expressions of liking or love, or

Dr Hirsch *is with the Department of Psychology at East Tennessee State University in Johnson City, Tennessee.* ***Dr Barton*** *is with the Department of Human Development and Learning at East Tennessee State University.*

providing acknowledgement of the subjective "experience" an individual may be having with a difficult or stressful situation.

In the college setting, research confirms the positive impact of social support on adjustment. When adequate peer, parental, and institutional social support is available, college students appear to receive a range of academic and mental health benefits, including improved coping and adaptation to college[20]; increased likelihood of college commitment, retention, and graduation[21]; less psychological symptoms as a result of stress[22–24]; and reduced loneliness and social dissatisfaction.[25] Social support, broadly defined, is also related to reduced likelihood of suicidal behavior in college students[26,27] and promotes well-being and help-seeking behaviors.[28–30] On the other hand, lower levels of parental and peer support are associated with poor academic performance and increased aggression, anxiety, and depression.[31]

Equally or more important as the presence and quality of social support, negative social interactions may have a deleterious effect on well-being, and potential suicide risk, of college students.[32–34] Negative interactions are likely to create an additional source of stress beyond those of the college environment, thus increasing the probability of poor transitional adjustment.[19] Negative interpersonal exchanges appear to play a significant role in perceived stress, health, and psychological functioning in college students.[35,36] For example, family and peer conflicts are associated with decreased social attachment and increased emotional problems and psychological distress.[37,38] Risk for suicide may also be partially determined by the experience of negative, rejecting or critical interpersonal interactions. As an example, deficits in peer and parental support are associated with increased suicide ideation in college students.[39]

Despite the importance of social relationships to developmental psychological health in college students, very little research has examined the independent effects of specific types or functions of social support; further, the differential effects of positive and negative social support are understudied.[39] In independent and full models, we hypothesized that the subscales of social support, including emotional, tangible, and informational support, would be negatively associated with, and negative social exchanges positively associated with, suicide outcomes. A better understanding of the patterns of support that might mitigate or exacerbate risk for suicide in college students may help to inform targeted interventions at the individual and community levels.

METHODS

Participants

A sample of 439 undergraduate students (311 female, 71%) was recruited to participate in an institutional review board-approved private and confidential online survey and was awarded extra credit points for survey completion. Mean age of participants was 21.02 years old ($SD = 6.10$), and the sample was predominantly white (91%). Participants were primarily freshmen (46%), but also included sophomores (21%), juniors (15%), and seniors (14%).

Measures

We assessed *social support* and *negative social exchanges* using the Multidimensional Health Profile–Psychosocial Functioning (MHP-P),[40] which is a 58-item measure of positive and negative social support, life events, coping, and psychological distress. We utilized the subscales of emotional support, informational support, and tangible support; previous research supports use of a 3-factor solution rather than the total score.[40] We also used a 4-item subscale of negative social exchanges. The Multidimensional Health Profile has adequate psychometric properties in use with college undergraduate students.[40,41] In our study, Cronbach's alpha was excellent for the social support subscale scores: emotional ($\alpha = .88$), informational ($\alpha = .88$), and tangible ($\alpha = .89$), and for the negative social exchange subscale ($\alpha = .86$).

Suicidal behavior was assessed using a modified version of the Suicide Behaviors Questionnaire—Revised (SBQ-R),[42] which was designed to assess lifetime suicidal behaviors. The original SBQ-R contains 4 items, including one item that queries a history of either suicide ideation or attempts; our 5-item version separates ideation and attempts into separate questions. Items are scored on Likert scales, and each item has a different response set; higher scores indicate greater levels of suicide. The SBQ has adequate internal consistency ($\alpha = .75–.80$) for clinical and community samples, and high test–retest reliability over two weeks ($r = .95$).[43] In the current study, Cronbach's alpha was adequate ($\alpha = .78$).

Statistical Analyses

Bivariate correlations were used to assess independence of and associations between variables (Table 1); no correlation coefficients reached recommended thresholds for multicollinearity.[44] Hierarchical, multivariate regression controlling for age, gender, and ethnicity were conducted to test for main effects. Covariates were entered together on the first step of the analytic model, and predictor variables were entered on the second step (Table 2).

RESULTS

In our sample of 439 college students, 46% ($n = 200$) reported past suicidal ideation, including 124 students (28%) reporting thoughts of suicide in the past year. Forty-three students (10%) reported making a past suicide attempt; 2% (8 students) reported that they might attempt suicide in the future.

In bivariate correlation analyses, emotional, informational, and tangible support were significantly negatively associated with suicidal thoughts and behaviors, whereas negative social exchanges were significantly positively associated with suicidal thoughts and behaviors. Increasing age was significantly negatively associated with informational and tangible support (Table 1).

TABLE 1. Mean Scores and Bivariate Correlation of Study Variables

	Mean	SD	N	%	Age	Gender	Ethnicity	Emotional support	Informational support	Tangible support	Negative social exchanges	Suicide
Age	21.02	6.10			—	.01	.17**	−.08	−.13**	−.16**	.01	.04
Gender	Female		311	71	.01	—	.00	.15**	.04	.03	−.05	−.06
Ethnicity	White		401	91	.17**	.00	—	−.08	−.19**	−.07	.05	.03
Emotional support	12.37	2.74			−.08	.15**	−.08	—	.80**	.69**	−.34**	−.19**
Informational support	12.35	2.50			−.13**	.04	−.19**	.80**	—	.68**	−.36**	−.16**
Tangible support	12.81	2.47			−.16**	.03	−.07	.69**	.68**	—	−.33**	−.23**
Negative social exchanges	9.26	11.82			.01	−.05	.05	−.34**	−.36**	−.33**	—	.30**
Suicide	4.98	3.10			.04	−.06	.03	−.19**	−.16**	−.23**	.30**	—

TABLE 2. Multivariate Regression of Positive and Negative Social Exchanges and Suicidal Thoughts and Behaviors

	t value	*p* value	Un β	Standard error
Constant	3.75	.00	4.81	1.28
Age	0.36	.72	0.01	0.02
Sex	−0.76	.45	−0.24	0.32
Ethnicity	0.29	.77	0.05	0.15
Emotional support	−0.82	.41	−0.08	0.09
Informational support	1.25	.21	0.13	0.10
Tangible support	−2.48	.01	−0.21	0.08
Negative social exchanges	5.21	.00	0.23	0.04

We conducted a series of independent multivariate regression analyses using each of the MHP-P social support and negative exchange subscales. In independent models, emotional support, $t = -3.92$, Un(standardized) $\beta = -.21$ ($SE = .05$), $p < .001$, informational support, $t = -3.27$, Un $\beta = -.20$ ($SE = .06$), $p < .01$, and tangible support, $t = -4.82$, Un $\beta = -.29$ ($SE = .06$), $p < .001$, were significantly associated with a lower suicide total score, over and above the effects of covariates. Negative social exchanges were significantly associated with increased suicidal thoughts and behaviors, in an independent model, $t = 6.47$, Un $\beta = .27$ ($SE = .04$), $p < .001$.

In a full model, including all social support subscales and the negative social exchanges subscale, only tangible support and negative social exchanges remained significantly associated with suicide total score (Table 2).

COMMENT

In support of our hypotheses, we found that emotional, informational, and tangible support were associated with lower levels of suicidal thoughts and behaviors, whereas negative social exchanges were associated with increased suicidal thoughts and behaviors, in independent models. In a full model, our hypotheses were partially supported; only tangible social support and negative social exchanges were significant predictors of suicide outcomes. Our findings extend the literature on the association of positive and negative social support to suicide and have implications for the development of targeted prevention and intervention strategies for college students.

Although some research suggests that young adults enrolled in college may be somewhat protected from suicide,[14] concern still exists about the confluence of potential stressors that exist for college students that might contribute to risk for suicide,[4] particularly disruptions in interpersonal relationships and support networks. Our findings suggest that the provision of tangible social support and the reduction of negative social exchanges may reduce the likelihood of suicidal thoughts and behaviors in college students.

For a student, the transition to college involves identity and role development[45] and, often, a perception of increased independence and responsibility by others. Withdrawal of some forms of support (eg, monetary allowance, food, clothing, insurance) and premature independence may occur without adequate preparation by the student, perhaps resulting in feelings of distress, isolation, and hopelessness.[18,46] Conversely, receipt of parental support is associated with less loneliness and better friendships, as well as less depression and anxiety, in college students.[47] We found, in a full model, that the provision of tangible, and perhaps more practical, forms of support was associated with reduced suicidal behavior. The receipt of pragmatic support from a peer, parent, or the institution may "lighten the load" somewhat for a college student, providing a sense of feeling cared for beyond more passive offers of assistance.

The transition to college may also be fraught with potentially difficult interpersonal experiences that must be navigated. At the familial level, parents may have difficulty relinquishing control of their children and may have different expectations regarding degree of independence for the student.[48] College students are also faced with the task of developing and maintaining new social relationships; approaching and meeting new students, being accepted by peers, and having interpersonal conflicts with friends and roommates are reported as significant interpersonal stressors during college.[47,49] To the extent that a college student experiences healthy and functional parent–child, peer-to-peer, and institutional–student relationships, they may experience less risk for suicide; however, the facilitation of such adaptive relationships may be out of the control of the student. Therefore, it is important for parents and academic institutions, as well as peers, to attempt to be responsible stewards of their relationships with college students, perhaps via purposeful reductions in aversive interpersonal interactions with students.

Limitations

The limitations of the study must be considered, including the cross-sectional research design, an ethnically homogenous sample, and potential bias due to use of single-informant, self-report assessments. Strengths were test of a novel hypothesis with implications for suicide research and prevention and use of well-validated research measures. Although suicidal behavior is often predominant in females, our use of a largely female sample may limit generalizability. Further, examination of the role of sex in the associations between positive and negative social support and suicide may be an important area for future study. Prospective and objective studies examining the relationship between social exchanges and suicidal behavior in diverse samples of college students are needed.

Conclusions

Despite limitations, our findings may have implications for the development of targeted intervention and prevention

efforts by college communities. We found that emotional and informational support were negatively associated with suicide; therefore, the provision of emotional and informational support, via peer relationships, college counseling centers, psychology training clinics, and other public health points-of-contact, may be a key strategy in the promotion of well-being and reduction of suicide on college campuses. We also found that tangible support, such as that potentially provided by membership in an organized campus club or society, may also be an important factor in reduced likelihood of suicide, supporting previous research.[20] It is equally important for parents and peers to contribute to the support networks of college students. The transition to college may be viewed by parents and peers as a developmental milestone of interpersonal and financial independence, with a consequent reduction in previous levels of support. Our findings suggest, however, that continued maintenance of a variety of types of support may be an important factor in the reduction of suicide risk. Viewing the collegiate academic experience as a unique and oft-difficult life transition may encourage parents and caregivers of college students to sustain positive supportive efforts. However, this maybe a somewhat delicate balance; too much support may inhibit the development of autonomy and competence that are necessary for success in college and the transition to adulthood.[48,50]

NOTE

For comments and further information, address correspondence to Jameson K. Hirsch, Department of Psychology, East Tennessee State University, PO Box 70649, Johnson City, TN 37614, USA (e-mail: hirsch@etsu.edu).

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