Published in final edited form as:

Suicide Life Threat Behav. 2012 December ; 42(6): 672–683. doi:10.1111/j.1943-278X.2012.00121.x.

Latina Adolescent Suicide Ideations and Attempts: Associations with Connectedness to Parents, Peers, and Teachers

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Abstract

Associations between suicidal behavior and social-ecological variables were examined among 1,618 Latina high school students (mean age = 15) from the nationally representative Add Health sample (68% were U.S.-born). Ideations were associated with having a suicidal friend, lower perceived father support, and overall parental caring. Attempts were associated with having a suicidal friend, and lower perceived teacher and parental support. Peer and mother relationship variables were not predictors of ideations or attempts. The protective role of father and teacher support has not previously been emphasized in the literature. Strengthening connections to parents and teachers may reduce suicidal behavior in adolescent Latinas.

Suicide is the third leading cause of death for 10 to 24 year olds in the United States, and Latina adolescents had the highest rates of suicidal ideation (21%) and attempts (14%) compared with their peers in 2011 (e.g., 17% and 18% of African American and Caucasian adolescent females, respectively, reported suicidal ideation, while 9% of African American and 8% of Caucasian adolescent females, respectively, reported making an attempt in the past 12 months) (Centers for Disease Control [CDC], 2012). The public health importance of Latina adolescent suicidal behavior is apparent when considering Latinos are the largest nonmajority ethnic group in the United States, projected to comprise 24% of the population by 2050 (U.S. Census, 2002).

Mental health problems, including depression, anxiety, and substance abuse, increase risk of suicidal behavior for Latina adolescents and for other adolescents (Duarte-Velez & Bernal, 2007; Foley, Goldston, Costello, & Angold, 2006; Gould et al., 2004). In addition to individual-level factors, evidence is increasing that risk of suicidal behavior is influenced by social-ecological factors.

The socioecological paradigm (i.e., Systems Theory), which also served as a conceptual framework for this study, posits that individual development is an outcome of interaction

among the micro-, meso-, and macrosystems (Hawley, 1950). Focusing on relationships involving an individual within these settings, this paradigm emphasizes influences of diverse settings (i.e., family, community, and school/work) on a variety of physical and mental health outcomes (Mayberry, Espelage, & Koenig, 2009). Through these multiple systems, social-ecological theory posits that qualities such as interdependence and negative feedback describe the dynamic relationships people have in their environment and influence risk of psychopathology (Stokols, 1992). Racial/ethnic status and gender can also influence risk and protective processes across settings by affecting levels of perceived stress and access to support (Goebert et al., 2010).

Congruent with a social-ecological perspective, an adolescent's relationships with peers, family, and adults outside of the family are emerging as factors influencing risk of suicidal thoughts and behaviors. For example, attempt rates are higher in adolescents who report lower peer emotional support (Borowsky, Resnick, Ireland, & Blum, 1999). Having fewer social networking opportunities and weaker friendship ties have also been linked to suicidal behaviors, particularly for female adolescents (Bearman & Moody, 2004; Roberts & Chen, 1995). Differences between boys and girls in suicidal behavior may be attributable to divergence in socialization processes, including with peers. For example, higher expectations for peer relationships may heighten females' vulnerability to relationship losses (Allgood-Merten, Lewinsohn, & Hops, 1990). In addition to peer network characteristics, peer behaviors are also influential in adolescents' risk of suicidal behavior. Suicidal behavior of peers, in particular, is associated with elevated risk of suicidal ideation and behavior. For both male and female adolescents, studies in the literature report that if a member of an adolescents' peer friendship group attempted suicide, the remaining peers have an increased likelihood to attempt as well (Bearman & Moody, 2004; Joiner, 2002), and the relative risk of dying by suicide after a suicide death in one's social sphere has been reported as two to four times higher among 15 to 19 year olds than for other age groups (Gould, Wallenstein, & Kleinman, 1990).

"Connectedness" (Whitlock, 2006) describes linkages that encompass dyadic forms of relationships between individuals, belonging and reciprocal positive regard, and explains risk and protective mechanisms for suicidal behavior within social systems (Wyman et al., 2010). Family serves as a key source of connectedness for children and adolescents, and research points to the importance of family as a source of protection and risk in regard to suicidal behavior. A number of studies have linked adolescents' perceived connectedness to family with reduced risk of suicidal behavior (Borowsky et al., 1999; Kerr, Preuss, & King, 2006) including among Latinos (Guiao & Esparza, 1995). Relatedly, positive parenting in mothers of Latina adolescents is also linked to lower depression as well as to reduced suicidal behaviors in their daughters (Turner, Kaplan, Zayas, & Ross, 2002). Conversely, Latinas who had conflict with parents are more likely to consider suicide or make an attempt (O'Donnell, O'Donnell, Wardlaw, & Stueve, 2004; Zayas & Pilat, 2008).

Latina adolescents' risk of suicide may also be influenced by their families' cultural status, which encompasses factors such as language use at home, place of birth, and citizenship (Rogler, Malgady, & Rodriguez, 1990; Tortolero & Roberts, 2001), and is an important antecedent to a range of psychosocial outcomes (Marin & Flores, 1994). For example,

Latinos born in the United States are at an increased risk of depression and drug use compared with native-born Latinos (Escobar, Hoyos, & Gara, 2000). Similarly, positive relationships have been found between acculturation and suicidality (Zayas, Bright, Alvarez-Sanchez, & Cabassa, 2009). As a Latina acculturates, cultural protections including close familial bonds, spirituality, and collectivism tend to weaken, and it has been posited that her risk of adverse mental health outcomes including suicidal ideation and attempts increase (Turner et al., 2002; Zayas & Pilat, 2008). Thus, family cultural status is intertwined with other protective and risk factors within the family system.

Although prior studies point to the importance of factors across social-ecological systems in influencing risk of suicide among Latina adolescents, a number of questions remain unanswered. First, although the quality of Latina adolescents' relationships with mothers, and with parents as an aggregate, have been linked to risk of suicidal behavior (Turner et al., 2002; Zayas et al., 2009), connectedness with mothers and with fathers individually has not been examined. Although mother–daughter relationships have been studied extensively, father–daughter connectedness has received minimal attention. However, it may be argued that perceived father support could be a protective factor for Latinas because of evidence that acculturation strain increases conflict with parents, particularly mothers (Turner et al., 2002). Second, the role of ties to peers and nonparental adults, which may compensate for weakened ties with parents associated with acculturation strain, has received little focus with Latina adolescents. Latinas at risk for attempts reported rejection by their peers and teachers (Turner et al., 2002); however, the role of peer and adult support in school has not previously been examined along with support from parents.

In the present study we examined the contribution of the aforementioned social influences on Latinas' risk of ideation and attempts. The study was guided by the following hypotheses: suicide proclivity (ideations and attempts) would be associated with lower self-reported social integration and perceived support, as evidenced by fewer positive connections with parents as an aggregate, with father and mother separately, and with peers and teachers. In addition, suicidal peers were expected to increase a Latina's risk of suicide ideations and attempts. Owing to well-established associations between depression and substance use levels (Pena et al., 2008) and cultural status (Zayas & Pilat, 2008) with risk of suicidal behaviors, the influence of depression, substance use, and several cultural status variables were controlled for in testing relationships between social-ecological variables and suicidal ideation and behaviors.

Methods

A nationally representative sample of adolescents was obtained from the Add Health (National Longitudinal Study of Adolescent Health) Wave I dataset (Harris et al., 2009) compiled from school and in-home questionnaires. This study used the first of multiple waves of Add Health for several reasons. First, because prior studies with the dataset had not examined social-ecological risk and protective factors specifically for Latinas, a simpler, cross-sectional design was deemed the most appropriate starting point rather than a complex longitudinal design. Second, suicide ideation and attempts are frequently acute issues, and shorter time scales may be more relevant. A sample of 1,618 Latinas were selected for the

analysis. The complex sample design, with oversampling of Puerto Rican and Cuban participants, required the use of weighted analysis in STATA 10.0.

Measures

Suicidal Ideations and Attempts—The ideation measure was dichotomous (“past 12 months, did you ever seriously think about committing suicide?”). We use the term “ideations” throughout this article because individuals rarely have one single thought concerning suicide. Attempts were measured using a question as follows: “past 12 months, how many times did you actually attempt suicide?” Both variables have been used with Add Health data (Bearman & Moody, 2004; Borowsky et al., 1999), and higher values indicated presence of ideation or attempts.

Family and Adult Support—The mother and father indices included three questions based on Haynie, South, and Bose's (2006) study measuring parental closeness with Latino adolescents' suicidal risk. Mothers, fathers, and parents collectively were examined separately to ascertain any differences.

Parental support was measured by the following: (1) How close do you feel toward your mother/father? (2) How much do you think she/he cares about you? (3) Most of the time your mother/father is warm and loving toward you. The three aforementioned questions created two separate variables for mother and father support. “Parents care” was measured by the item, “How much do you feel that your parents care about you?” “Teachers care” was measured by the item, “How much do you feel that your teachers care about you?” All measures were based on a Likert scale (1 = *not at all*; 2 = *very little*; 3 = *somewhat*; 4 = *quite a bit*; 5 = *very much*). There were minimal missing data (less than 20%) on mothers, fathers, and parents.

Suicidal Friends—Latinas were asked “Have any of your friends tried to kill themselves in the past 12 months?” This question has been used extensively in the adolescent suicide literature (e.g., Russell & Joyner, 2001). The variable is the affirmative of its label.

Peer Support—Three variables evaluated friend support: “How much do feel that your friends care about you?” coded 1 (*not at all*) to 5 (*very much*); “I feel socially accepted” coded 1 (*strongly disagree*) to 5 (*strongly agree*), and “During the past week, how many times did you just hang out with your friends?” (0 = *not at all*, 1 = *1–2 times*, 2 = *3–4 times*, and 3 = *5+ times*). These measures were used in Kidd et al.'s (2006) work on adolescent attempters.

Reciprocated Friendships—Respondents nominated their female friends and best female friend. On both variables (friends, best friend), Latinas who nominated friends, or a best friend, and also received nominations by those same friends received a positive reciprocity score (1). A zero score indicated no reciprocity (i.e., Latina nominated a friend but received no nominations in return from that friend). Bearman and Moody (2004) used these variables in their study on adolescent suicidality.

In addition to the preceding predictors, the following measures were used as control variables.

Cultural Status—The composite variable consisted of four questions: mother's, father's, and child's place of birth and language preference ("English" predominately spoken at home). All variables were dichotomous and the affirmative of their label. A value of "4" would indicate higher acculturation level (i.e., Latina and parents were U.S.-born and spoke English in the home).

Behavioral Health Status—Nineteen of 20 questions from the widely used CES-D (Shrier, Harris, Sternberg, & Beardslee, 2001) measured severity of depression symptoms in the past week on a 4-point scale (0 = *never*; 1 = *sometimes*; 2 = *a lot of the time*; 3 = *most/all of the time*). The study designers of Add Health deleted a question about excessive sleep from the survey because of concerns about its appropriateness for adolescents. The item average score was used. The measure had adequate internal reliability (Cronbach's $\alpha = .74$). A substance use index was based on reported consumption during past 12 months of alcohol and illegal drugs (e.g., LSD, PCP, ecstasy). Respondents reported the number of times they used alcohol and illicit substances. These measures were used in adolescent suicide attempt studies (Granillo, Jones-Rodriguez, & Carvajal, 2005; Pena et al., 2008).

Data Analysis

Procedures—Multiple imputation was used to address missing values for the two reciprocity variables (46% missing data for naming friends and 36% for naming best friend; Rubin, 1987). No other variables had missing data above 20% of the cases. Multiple imputation is a Monte Carlo technique that replaces missing data through simulation and is common practice in the field of epidemiology (Rubin, 1987).

Owing to the distribution of the suicide attempt variable being highly kurtotic, negative binomial regression technique was employed (Hilbe, 2007). Negative binomial regression is an extension of the poisson regression (Cameron & Trivedi, 1998; Hilbe, 2007). Many of the assumptions of the poisson are essentially the same as the negative binomial regression, although one important deviation is the negative binomial regression assumes the mean and variance are not equal (Hilbe, 2007). Negative binomial regression calculates count models when the poisson estimation is deemed unsuitable as a result of overdispersion.

Logistic regression was used only for models that examined the dichotomous outcome variable of ideations and does not assume a normal distribution.

Two separate models were created for both ideations and attempts as the dependent variables (Model 1 and Model 2). Model 1 included the measures of mother and father support separately, while Model 2 included only the measure of self-reported level of care provided by parents. The development of prediction models for ideation and attempts utilized a forward selection procedure, and each variable was entered individually. First, all four cultural status variables were regressed on the outcome to detect any possible connections between culture and ideation or attempts. Afterward the measures representing depression, substance use, suicidal friends, parental supports, and a variety of peer supports and contacts

from their network were included. Variables that were entered but did not reach statistical significance were not included in subsequent models. Upon inclusion and removal of variables, changes in coefficients were also observed to detect any possible confounders.

Logistic models were tested for goodness-of-fit using the Hosmer and Lemeshow (2000) statistic. Odds ratios were reported to interpret the effect size of the significant results in the logistic models. Negative binomial models do not have a goodness-of-fit test that is agreed on because of their characteristic overdispersion of the outcome variable (Kvalseth, 1985), but effect sizes were reported using the incidence rate ratio (IRR; Cummings, 2009).

Results

Sample Description

Descriptive analyses of variables included in both models are presented in Table 1. The mean age was 15.0 years (range of 12–19 years old) for this culturally diverse group. Seventeen percent (275/1,618) of the Latinas reported ideation in the past year, and 6% reported at least one suicide attempt.

The item-average mean for depression symptom (CES-D) questions was 2.03, with a median of 1.81. The distribution of depression scores indicated that 46% of the Latinas reported an item average of 2.0, meaning that these girls experienced symptoms of depression either “some or a lot of the time” in the past week.

The substance abuse index resulted in a range of responses (0–1,020 times of use). The average number of times of use was 8.22 for any drugs in the past year, with a median of 0.20, indicating that use was highly skewed to the right with many Latinas reporting no use.

The mean for the father support measure was 1.40, with the median of 2.00, and the mother support measure had a mean of 2.00 and a median of 2.20. Over one third (38%) of Latinas reported that their father's level of support was not supportive at all and 33% of the Latinas reported that their mothers were supportive “very little.”

Latina Suicide Attempts—Results from regression analyses predicting suicide ideations and attempts are summarized in Table 2.

Model 1—Mother and Father Support

Model 1 included the separate measures mother and father support. Higher levels of depressive symptoms, lower levels of perceived teacher support, and having a suicidal friend were associated with attempts. The IRR indicated for every point higher on the depression scale a Latina reported, her likelihood of attempts increased 11%, and for every point higher on level teachers caring the likelihood of attempts decreased by 26%. Having a suicidal friend (regardless if friend reported reciprocity) increased the likelihood of attempts by 209%.

Model 2—Parents Care

Higher reported depression levels, lower perceived parental caring and teacher caring, and having a suicidal friend predicted attempts. The IRR indicated for every point higher on the depression scale a Latina reported, her likelihood of attempts increased by 10%; for every level increase in parents and teachers caring, the likelihood of an attempt decreased 41% and 23%, respectively. Having a suicidal friend increased likelihood of attempts by 235%.

Peer support variables, substance use, social acceptance, having friends who cared, hanging out with friends, and having a best friend or friend reciprocate did not predict attempts in either model.

Latina Suicide Ideations—Model 1 used the previously mentioned forward selection procedure that included mother and father support, while the second model included whether parents cared (Table 2).

Model 1—Mother and Father Support

Higher depression, less support from fathers, and having a suicidal friend predicted ideation. There was a 12% increase in risk of ideation for every level increase in depression; a 5% decrease for every level increase in perceived father support; and a 120% increase if she had a suicidal friend.

Model 2—Parents Care

Higher depression, lower perceived parental caring, and having a suicidal friend predicted ideation. Odds ratios indicated a 12% increase in ideation for each level increase in depression, a 28% decrease for each level increase in parents caring, and a 127% increase of ideations if she had a suicidal friend.

Both models fit well using the Hosmer and Lemeshow (2000) statistic. Peer support variables fell below significance and were ultimately removed from the final model as was the “hung out with friends” and substance abuse variables.

Discussion

In this study we utilized a social-ecological model to test predictors of adolescent Latinas' risk of suicidal attempts and ideation. Above and beyond the well-established risk factor for elevated depression, support from both parents and teachers was associated with fewer suicide attempts. In addition, Latinas who perceived their fathers as more supportive, as well as their parents as caring for them, were less likely to have suicide ideations. Having a suicidal friend was associated with elevated risk of both ideation and attempts. Latina's self-reported relationships with peers and mothers were not associated with either ideation or attempts, nor were substance use or measures of cultural status. Overall, our findings support the contention of social-ecological theory that relationships between individuals and the systems that comprise their environment are associated with aspects of positive and maladaptive development, including risk of suicidal behavior, although not all relationship systems were equivalent in conferring risk of suicidal behaviors. Our findings in particular

point to parents and teachers as potentially important protective factors for Latina adolescents and to suicidal peers as important risk factors.

Traditional Latino culture stresses respect for elders (Trepper, Nelson, McCollum, & McAvoy, 1997), and in that context, our finding that greater parental caring was associated with reduced risk of attempts and ideation was expected. In contrast, our finding that perceived caring from teachers was associated with lower risk of attempts was less expected and is more novel. Latinas in this study came largely from immigrant families and turning to nonfamily members has been viewed a counter to cultural norms (Berdahl & Torres-Stone, 2009). However, the benefits of perceived caring from teachers may be manifold. In addition to the salutary psychological benefits of perceived connectedness with teachers, teacher caring may also reflect an adolescents' positive engagement to school, which is a key developmental competency and associated with many benefits to well-being (Whitlock, 2006).

Prior research has shown that mother–daughter mutuality reduces Latinas' risk of suicide attempts (Turner et al., 2002); our finding that perceived caring by mothers was not a significant protective factor was less expected. In contrast, our finding that greater connectedness to their father decreased risk of ideation is novel. Prior research has found that many Latino fathers are absent or have minimal emotional interactions with their daughters and may have minimal influence on their child's mental health (Yu et al., 2008). The potential influence of fathers on Latina adolescents' well-being and risk of suicide requires further inquiry.

Among Latinas in the present Add Health sample, 38% were first-generation immigrants and less than 20% were from second-generation (or higher) immigrant families. In other words, the majority were recent immigrants. Daughter–parent relationships for Latinas in our study may differ compared with those in more acculturated households. Acculturative stress is common between traditional mothers and their daughters who are exposed in school or via media to mainstream U.S. views about women's roles and norms for behavior, prompting adolescents' frustration by their mother's adherence to traditional gender roles. Consequently, Latinas might experience less acculturative strain with their father, who is more likely to work outside of the home and has possibly adopted more mainstream views compared with her mother. In this context, a father's support might impact well-being differently. Further inquiry is needed to explore father–daughter relationships including samples that have more acculturated Latinas. In addition, prevention programs that encourage father involvement with daughters in school activities might profitably be explored.

First-generation Latina adolescents may also have different types of relationships outside the home than more acculturated Latinas. For example, role conflict may occur when Latinas become cultural brokers between family members and adults (Buriel, Perez, DeMent, Chavez, & Moran, 1998), and in this context, her *peer* relationships might include teachers and other adults, more so than same-age peers in some instances. Therefore, the importance of peer support might not have the same protective benefits for Latinas from immigrant homes compared with other youth.

In terms of implications for prevention, our findings regarding the potential risk factor for friends' suicide attempts suggest that heightened awareness of the maladaptive behavior of a Latina's friends may contribute to early detection of suicidal risk, particularly if her friend's suicidal behavior supports a perceived norm that suicide is an acceptable response to distress. In this study, Latinas with suicidal friends were twice as likely to report ideation compared with Latinas who did not have a suicidal friend. Given the higher risk of suicide contagion among adolescents, parents and teachers should be keenly aware of a Latina's friendship network (Insel & Gould, 2008).

Consistent with previous studies (e.g., Bearman & Moody, 2004; Russell & Joyner, 2001; Winterrowd, Canetto, & Chavez, 2010), having a suicidal friend was associated with increased risk of suicidal ideation and attempts in this sample of Latinas. This link is well-established in community samples of adolescents that combine different race/ethnic groups. To the best of our knowledge, this study is one of the first to show this relationship is also reliable with Latina adolescents for both suicidal ideation and suicide attempts, above and beyond the effects of depression and parent support. Because Latinas in this study predominately came from immigrant households, and because suicide is a rare occurrence in their parents' homelands (World Health Organization, 2010), many immigrant parents might not be aware of the associations between suicidal friends and their own children. Educational programs to increase parent awareness of links between peer group suicidal behavior and risk of suicide in other teens may be one profitable prevention focus, such as through school or parent-teacher meetings on the topic of suicide prevention.

Our finding that a Latina's level of perceived caring from her teachers was associated with reduced risk of suicide attempts may also have implications for prevention. Greater school engagement among female adolescents has been associated with effective suicide prevention efforts (Wyman et al., 2010), but programs have rarely targeted Latinas or addressed specific barriers to school connectedness for this group. A number of school-based suicide prevention programs have been developed which focus on strengthening coping skills and help-seeking from adults to aid suicidal peers (Wyman et al., 2010) and train students, teachers, and staff to become more aware of the potential warning signs of suicide (Wyman et al., 2008). Programs targeting the total population of students in a school may help to reduce the stigma of asking for help and enable students to learn prosocial behaviors as a collective. Latinos often use family members for emotional support, therefore identifying approaches that engage Latinas in school interventions while at the same time respecting cultural values emphasizing family support is imperative.

We did not include in this study Latinas who had dropped out of school, a group that may be at a high risk for suicide because of the lack of protective factors from school and relationships with peers and adults who introduce them to risk factors associated with ideation and attempts (i.e., drug use; Epstein, Botvin, Diaz, & Schinke, 1995). Promoting community interventions via neighborhood centers and spiritual leaders may be important considerations for Latinas not attending school.

Limitations and Strengths

One limitation, common with self-report questionnaires, is the risk of social desirability bias. However, to protect against this threat in Add Health, respondents used earphones for sensitive questions and entered their answers in provided computers. Children who were absent the day the questionnaire was distributed, or who had dropped out of school, were not included in the study. Latinos have the highest dropout rates in the country (U.S. Census, 2003) and this could have affected our results. Another limitation was the measurement of many constructs by single items. Although “face valid,” these items may have limited reliability. Our analytic models were also limited in several instances by missing data for peer and friendship network variables. In addition, Add Health was designed to ascertain as representative a sample as possible. However, a large number of Latinas reported having at least one immigrant parent, and whether the sample was representative of all Latino families in terms of immigrant status is difficult to determine. As a result, our findings should be observed with some caution. Additionally, it should be noted that the data were collected between 1994 and 1995, and risk and protective factors could have changed because of the increased number of Latinos in the United States and changes in other cultural factors.

We focused on family, adult, and peer relationship factors among Latina adolescents to determine associations with suicidal risk. We examined familial supports in two specific ways, parents collectively and mother and fathers separately. Although the parents care and teachers care measures were based on one question, it lays a foundation for further inquiry regarding these constructs.

Policy and Research Implications

Latinas have high rates of suicidal behavior, yet Latina-focused suicide prevention research and interventions are relatively rare. Comprehensive interventions across social-ecological settings, including schools and families, may be an important direction for creating culturally competent suicide prevention programs for Latinas. Direct service and policy arenas have been slow to act, especially in Latino neighborhoods. Owing to the importance of adult supports for Latinas, prevention programs reinforcing family bonds, especially with fathers, may be an important intervention direction for future research.

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Table 1
Descriptive Statistics: Suicide Behavior, Risk, and Protective Factors

Variable		%		
Outcome measures	Suicide ideations	17.0		
	Suicide attempts			
	Never attempted	94.0		
	Attempted once	3.5		
	2–3 times	1.5		
	4–5 times	0.5		
	6 or more times	0.5		
Suicidal friend	Had a suicidal friend	22.0		
Reciprocity	Friend reciprocity	68.0		
	Best friend reciprocity	39.0		
Cultural status	English proficient in home	46.0		
	Latina adolescent born in United States	62.0		
	Mother born in United States	4.0		
	Father born in United States	15.0		
		<i>M</i>	<i>SD</i>	Median
Adult level of support	Mother support	2.00	2.93	2.20
	Father support	1.35	4.89	1.80
	Parents care	4.77	0.63	5.00
	Teachers care	3.46	1.09	3.00
Peer connectedness	Hung out with friends this week	1.78	0.49	2.00
	Feel socially accepted by peers	3.96	0.77	4.00
	Friends care	4.26	0.73	4.00
Control variables	Depression index	2.03	0.61	1.81
	Substance abuse index	8.22	4.16	0.20

Table 2
Summary of Regression Analysis Predicting Suicide Attempts and Suicide Ideations (N = 1,618)

Dependent variable = Suicide attempts	B	SE	p value	B 95% CI
Model 1				
Depression	0.11	0.02	.001	0.07–0.15
Teachers care	–0.31	0.12	0.01	–0.54 to –0.08
Suicidal friends	1.13	0.35	0.01	1.04–1.83
Model 2				
Depression	0.10	0.02	.001	0.07–0.14
Parents care	–0.53	0.17	0.01	–0.86 to –0.20
Teachers care	–0.26	0.11	0.01	–0.48 to –0.04
Suicidal friends	1.21	0.31	.001	1.09–1.83
Dependent variable = Suicide Ideations				
Model 1				
Depression	1.12	0.01	.001	1.09–1.16
Father support	0.95	0.02	0.01	0.91–0.98
Suicidal friends	2.20	0.52	0.01	1.38–3.50
Model 2				
Depression	1.12	0.02	.001	1.08–1.16
Parents care	0.72	0.09	0.01	0.56–0.93
Suicidal friends	2.27	0.52	.001	1.45–3.56

Note. All models adjust for depression and cultural status.

Model 1 included measures of mother and father support separately.

Model 2 included a single measure of parental caring.