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Means, Intent, Lethality, Behaviors, and Psychiatric Diagnosis in Latina Adolescent Suicide Attempters

Carolina Hausmann-Stabile,
Washington University in St. Louis

Jill Kuhlberg,
Washington University in St. Louis

Luis H. Zayas,
The University of Texas at Austin

Allyson P. Nolle, and
Washington University in St. Louis

Stephanie Cintron
Pace University

Abstract

This article describes the means, intent, lethality, behavioral profile, and psychiatric diagnosis of adolescent Latina suicide attempters. From a large mixed-methods project studying the sociocultural processes of Latina suicide attempts, we selected 76 subjects for this report. In addition to quantitative research data, medical records were available for all 76 subjects and qualitative data from in-depth interviews for 34 of them. Using the qualitative and quantitative research data, we explored the intent and behavioral profile of the suicidal adolescents. Medical records provided additional information about the means the adolescents used in their attempts and about their psychiatric diagnosis. The lethality of suicide attempts was coded using the LSARS and the LSARS-II. Findings showed that Latina adolescent suicide attempts are of low lethality. Consistent with the literature, most adolescents reported that they attempted by using means available in their homes (cutting and overdosing with medications were the predominant methods). Interesting discrepancies emerged when comparing adolescents' self-reported behavioral profiles with clinicians' psychiatric diagnoses. This report has implications for diagnosis and treatment approaches for both inpatient and outpatient service providers.

Keywords

Latina adolescent; suicide attempt; intent; lethality; means; behavioral profile; psychiatric diagnosis

Latino adolescents, which account for 41.1% of the United States youth (Pew Hispanic Center, 2009), are at great risk for behavioral and psychiatric disorders (Centers for Disease

Correspondence should be sent to: Carolina Hausmann-Stabile, George Warren Brown School of Social Work, Washington University, CB 1196, One Brookings Drive, Saint Louis, MO, 63130-4899. chausmann@gwbmail.wustl.edu.

Control and Prevention, 2010). More specifically, Latina teens are at high risk for suicidal behaviors (Garcia, Skay, Sieving, Naughton, & Bearinger, 2008; CDC, 2010), and are almost twice as likely as non-Hispanic females to make suicide attempts that require medical attention (CDC, 2010).

Several studies have discussed the reasons behind this phenomenon (Turner, Kaplan, Zayas, & Ross, 2002; Zayas, Lester, Cabassa, & Fortuna, 2005), the characteristics of Latina suicidal attempts (Zayas, Gulbas, Fedoravicius, & Cabassa, 2010), and the challenges encountered when providing professional care to these patients (Spirito & Overholser, 2003). In this report, we analyze the means, lethality and intent of the girls' actions, and compare the adolescents' psychiatric diagnoses to the girls' own description of their behavioral profiles.

Suicide Attempts and Means

The method used to attempt suicide can have a determining role in its outcome (Overholser & Spirito, 2003). Adolescents using highly lethal methods (e.g., self-inflicted gun shots) report the strongest desire to end their lives, as compared to adolescents using less lethal methods (e.g., superficial self cutting) (Nasser & Overholser, 1999). Drug overdoses are the most common attempting methods among adolescents (Spirito, Overholser, & Stark, 1989). Most adolescent females attempt suicide by using means that are available in their homes, and while other people are around (Garfinkel, Froese, & Hood, 1982).

Suicide Attempts and Intent to Die

The Institute of Medicine defines a suicide attempt as a non-fatal, self-inflicted destructive act with the explicit or implied intent to die (Goldsmith, Pellmar, Kleinman, & Bunney, 2002). Intent refers to the desire to end one's life, and includes the person's knowledge of the risk and the means to achieve the desired outcome (Silverman, Berman, Sandal, O'Carroll, & Joiner, 2007). The vexing issue is determining *intent* in the absence of an explicit statement by the person, or in the face of a person's retraction after the attempt (Silverman et al., 2007). Adolescents often recant their statements of attempting suicide to avoid hospitalization, or sometimes give health care providers discrepant accounts of their behaviors (Velting, Rathus, & Asnis, 1998). In addition, they may engage in self-injurious behavior that deliberately inflicts some destruction or alteration to the body tissue (e.g., cutting) without expressing or having suicidal intent (Muehlenkamp & Gutierrez, 2004). When intent is ambiguous, mental health professionals are less likely to agree on whether or not an attempt was made (Wagner, Wong, & Jobes, 2002).

Suicide Intent and Lethality

Lethality is the inherent danger and the potential for death associated with the suicidal act (Berman, Shepard, & Silverman, 2003). A minimal association between the degree of suicide intent and the extent of medical lethality has been found, indicating that suicide intent and lethality are independent dimensions of suicide attempt behavior (Brown, Henriques, Sosdjan, & Beck, 2004). Among adolescents, the lethality of a suicide attempt

may be determined less by their intent to die than by their access to lethal methods (Spirito & Overholser, 2003). Furthermore, adolescents often have inaccurate perceptions of the risks associated with an attempt (Harris & Myers, 1997). For mental health professionals, low lethality attempts are often hard to distinguish from self-injury behaviors (Wagner et al., 2002).

Psychiatric Diagnosis and Suicide Attempts

Several studies have investigated the relationship between psychopathology and suicidal behavior. In a school-based sample, adolescents who engaged in suicidal behavior show higher severity of psychopathology than their non-suicidal peers (Mazza & Reynolds, 2001). Major depressive disorder is the most common psychopathology diagnosed among adolescents, and it is associated with the greatest risk of suicide attempts (Jacobson, Muehlenkamp, Miller, & Turner, 2008). Young females who have attempted suicide and have been diagnosed with severe personality disorder have been found to be at risk for repeat attempts (Blasco-Fontecilla, Baca-Garcia, Dervic, Perez-Rodriguez, Saiz-Gonzalez, Saiz-Ruiz… & De Leon, 2009). However, the severity of a personality disorder was not associated with the lethality of the attempt (Blasco-Fontecilla et al., 2009). The literature has stressed the role played by impulse-control issues among low-lethality female suicide attempters (Baca–Garcia, Diaz–Sastre, García Resa, Blasco, Braquehais Conesa, Oquendo… & de Leon, 2005).

Method

We used three nested data sets for this project: research questionnaires, qualitative interviews, and a retrospective chart review based on medical records. We selected 76 participants from a large mixed methods project studying the sociocultural processes of Latina suicide attempts. These 76 participants were chosen because, in addition to data from the research questionnaires, their medical records were available and could be used to develop retrospective chart reviews. For 34 of the 76 subjects, there were also qualitative data available from in-depth interviews.

Participants

Participants were self-identified Latinas between the ages of 11 and 19 from the New York City metropolitan area. In the preceding six months to the meeting with the research team, participants had reported behaviors that were labeled as *suicidal* by a mental health professional. The labeling of these behaviors took place in clinical settings (e.g., emergency pediatric rooms) to which the adolescents were referred or walked in on their own to receive medical attention due to their suicidal behaviors. Participants were recruited from a large social service and mental health agency and from the psychiatric outpatient, inpatient, and emergency services of several hospitals. All participants were receiving mental health services at the time of their enrollment. The adolescents were referred to the study by their treating clinician, who assessed that the girls were medically and psychiatrically stable enough to participate in the project—that is, to undergo the duration and characteristics of the research interview. Participants were thus not randomly selected; they were adolescents receiving services at the recruitment sites. Referring clinicians were in the eligibility criteria

for the project. The adolescents and their parents provided written assent and consent for their voluntary participation in the study. Prospective participants who were outside the age-range, were in foster care at the time of the suicide attempt, or had a diagnosis of mental retardation or psychotic disorder were excluded from the project. The exclusion of patients with psychotic disorders was done in an effort to protect these subjects and to avoid collecting data presenting confounding psychiatric issues that were beyond the scope of a sociocultural processes research project. Trained, master's-degree-level social workers or doctoral-level psychologists, all bilingual Latinas, conducted the interviews. Interviews typically required 50 minutes. All girls were paid for their participation. The Human Research Protections Office of Washington University in St. Louis, and each of the participating agencies and hospitals approved the procedures used in the project.

Data Sources

For this report we drew data from the questionnaires completed by 76 adolescents, the medical records of the same 76 adolescents, and the in-depth interviews conducted with 34 of them. From the questionnaires we drew demographic and behavioral data and the number of previous attempts, if any. From the medical records, we developed a retrospective chart review with information about the psychiatric diagnosis given to each adolescent after her most recent suicide attempt, and about the means, injury extent, and circumstances of the attempt. The chart review was developed using the Lethality of Suicide Attempt Rating Scale (LSARS) (Smith, Conroy & Ehler, 1984) and the Lethality of Suicide Attempt Rating Scale II (LSARS II) (Berman et al., 2003) models. Finally, from the in-depth interviews we drew qualitative data that allowed us to explore the suicide attempt's intent from the girls' perspective. All interviews were analyzed using a structured coding, and a statement of intent was compiled for each one.

Variables

Means—The manner in which the adolescent attempted suicide was collected from the medical charts. This variable included actions (e.g., facing traffic, ingesting pills) and devices (e.g., kitchen knife). For cases in which the attempt was made by ingesting substances, doses (e.g., Tylenol doses) as well as subject's body weight were recorded.

Lethality of the attempt—The Lethality of Suicide Attempt Rating Scale (LSARS, Smith et al., 1984) describes the likelihood of death as a result of a suicide action. The scale is supplemented by the LSARS –Updated (LSARS-II, Berman et al., 2003), which offers a complementary appendix listing drugs, chemicals, and lethal ranges of ingestion by body weight. The instrument is an 11-point scale (0 = "death is an impossible result" to 10 = "death is almost a certainty") that reflects the severity of the suicide attempt. Suicidal behavior scoring above scale-point 3.5 would be labeled as *serious* by most clinicians (Range & Knott, 1997). The strengths of this instrument include that it can be used by non-medical raters, it can be applied to historical data, and can help clinicians to rank the attempt's lethality unbiasedly (Smith et al., 1984). Inter-rater reliability for the instrument has been found to be high, from r=.81 for social workers to r=.88 for psychologists (Smith et al., 1984; Nasser & Overholser, 1999). For our study, two trained researchers working

independently scored the attempt lethality using the information collected from the participants' medical charts. Inter-rater reliability was perfect (r=1.00).

Psychiatric diagnosis—From the medical records, we collected the first psychiatric diagnosis given to the adolescents following their suicide attempts. We reported the diagnosis using the DSM IV TR multi axial method (American Psychiatric Association, 2000). At times, clinicians gave the adolescents more than one diagnosis on each axis. Axis I diagnoses were collapsed by the research team into mood, adjustment, anxiety, and impulse control disorder categories. This clustering is based upon the DSM IV Axis I diagnosis classification (APA, 2000). Axis II personality disorders diagnoses were clustered into borderline, mood, and deferred categories. Axis III diagnoses were collapsed into three categories: asthma, other (e.g., obesity), and none. Axis IV psychosocial and environmental stressors were collapsed into four categories: family stressors, history of abuse, peer problems, and other (i.e., relocation, absence of parent, financial problems). Axis V GAF scores were collapsed into 10-point ranges (i.e., 21–30, 31–40).

Behavioral profile: Internalizing and externalizing behaviors—The adolescents' self-reported internalizing and externalizing behaviors were drawn from the subscales of the same names, from the Youth Self Report (YRS) (Achenbach, 1991) included in the research questionnaires. Research has established the YSR reliability and validity for samples of English as well as Spanish speakers (Achenbach, 1991). The YSR internalizing and externalizing behaviors subscales consist of 32 and 20 items respectively, rating specific social, behavioral, and emotional problems using a 3-point Likert-scale ("not true" to "very true or very often"). The internalizing behavior subscale includes withdrawn depressive behaviors, anxious depressive behaviors, and somatic symptoms. For this study, the subscale's coefficient alpha was .91. The externalizing behavior subscale includes aggressive and rule-breaking behaviors. For this study, the externalizing behavior subscale coefficient alpha was .91. We report the raw scores from both scales and subscales (for the internalizing behaviors: withdrawn depressive, anxious depressive, and somatic symptoms subscales; for the externalizing behaviors: aggressive and rule breaking behavior subscales) as well as the percentages of subjects that reached borderline clinical or clinical range in the subscales, using the T-score cutoffs recommended in the YSR manual (Achenbach, 1991).

Attempt recorders—The mental health professionals who recorded the information in the medical charts, and who labeled the adolescents' behaviors as *suicidal*, were coded once for their profession (i.e., nurse, psychiatrist, social worker/psychologist) and again for their workplace setting (i.e., emergency room, outpatient clinic).

Intent to die—The adolescent's intention to die at the time of the suicide attempt was drawn from 34 subjects who completed qualitative interviews, and coded as "yes," "no," or "unsure." "Unsure" indicates that the adolescent was uncertain about her intention.

Lifetime attempts—The number of attempts reported by the adolescents, including the most recent, was collected from the research questionnaires.

Covariates—From the research questionnaires we recorded covariates including the age of the adolescent, whether or not she was U.S.-born, and the self-identified Hispanic cultural group (e.g., Mexican) (see Table 1).

Analysis Techniques

The data were analyzed using SAS statistical software version 9.3 (SAS Institute, Cary, NC). Univariate descriptive statistics were performed on all the numerical variables studied, and for all 76 participants included in this report. Qualitative data analyses were performed on the in-depth interviews, which were available for 34 of the 76 participants. All interviews were audio-recorded to increase their *descriptive validity* (Maxwell, 1992). Interview transcripts were analyzed using a structured coding scheme that identified text segments that described the intent of their suicidal behaviors. A statement of intent was compiled for each transcript.

Results

Demographics

The 76 girls whose data inform this paper were on average 15.5 years old (*SD* = 1.8) and in ninth grade. The majority of the participants were born in the US (76.3%), and were of Puerto Rican (42.1%), Dominican (31.6 %) or Mexican (18.4%) descent (see Table 2).

Means

The most common methods for attempting suicide were cutting using an array of objects, such as knives, pieces of glass, and nail files (42.1%); and overdosing with over-the-counter or prescribed medications (36.8%). Some attempters combined these two methods (9.2%). It is important to note that mental health professionals labeled the self-cutting of all the adolescents in this report as *suicidal*. Less common attempting methods were jumping off buildings (7.9%), suffocating by placing plastic bags over their heads, and trying to hang themselves (3.9%).

Lethality

Lethality scores ranged from 0 (6.7%), in which “death is an impossible result of the ‘suicidal’ behavior,” to 5 (2.7%), in which “the chosen method has an equivocal outcome” (10 being the highest point of the scale). The majority of participants had low lethality scores, or below 3.5 (84%). Twelve participants, however, had lethality scores higher than 3.5 (16%), which can be labeled as *serious* (Range & Knott, 1997). The majority of the low-lethality attempters had a score of 1 (61.3%), for which a lethal outcome is “very highly improbable.” They were followed by those scoring 2 (16%), for whom “death is improbable as an outcome of the act.” In the higher lethality group, the suicidal actions of 10 participants scored 3.5 (13.1%), meaning that “death is improbable so long as first aid is administered by the victim or other agent.” Finally, only two participants were coded with a lethality score of 5(2.7%).

Psychiatric Diagnoses

Axis I—Psychiatric diagnoses given by mental health professionals to the Latina adolescents following their latest suicide attempt report were collapsed into four categories: mood, adjustment, anxiety, and impulse control disorders. The majority of the adolescents were given one Axis I diagnosis (64%), about a quarter received two (26.5%), and only a tenth of the sample received three or more Axis I diagnoses (9.5%). Following their suicide attempts, almost two thirds of the adolescents were given a mood disorder diagnosis (62.7%). The most prevalent mood disorder diagnosis was depressive disorder (48%), followed by other mood disorders (i.e., mood disorder NOS) (13.3%), and dysthymia (8%). One third of the adolescents were diagnosed with an adjustment disorder (30.7%). Adjustment disorder with depressed mood was the most common label used among this diagnosis category (21.1%). Clinicians diagnosed 11 suicide attempters with anxiety disorders (14.7%). Post-traumatic stress disorder was the most common anxiety disorder diagnosis given to the teens (9.3%). Only a small group of adolescents was given an impulse control disorder (4%) or oppositional defiant disorder (4%) diagnosis.

Axis II—Clinicians diagnosed only a small number of girls with personality disorders (4%). These youngsters were labeled as having *borderline personality traits*.

Axis III—The majority of records (57.9%) did not report any medical conditions for the adolescents included in this study. The most prevalent physical problem was asthma (18.4%).

Axis IV—The majority of adolescents was given an Axis IV diagnosis (77.6%). The most prevalent diagnoses were related to family relationship stressors (58%), followed by a history of abuse (17%). Among those participants with a history of abuse, the majority had been the victims of sexual abuse (60%) while some were physically abused (40%).

Axis V scores were collapsed into suggested 10-point ranges (21–30, 31–40, 41–50, 51–60). The average GAF score was 52.5 (*SD*=5.8), and ranged from 30 to 60. The majority of adolescents were ranked between GAFs of 50 and 60 (83.9%), with a GAF of 55 being given to 22 adolescents (19%).

Behavioral Profiles: Internalizing and Externalizing

The adolescents reported their internalizing and externalizing behaviors by completing a questionnaire with the YSR subscales (Achenbach, 1991) (see Table 2). The average raw score within the internalizing subscale was 26 (*SD*=11.3). More than two-thirds of the participants scored in this subscale within the borderline clinical or clinical range (69.9%). This subscale is composed of three subscales: withdrawn depressive behaviors, anxious depressive behaviors, and somatic complaints. The average raw score within the withdrawn depressive behaviors subscale was 7.3 (*SD*=2.9). Over one-third of the study participants were within this scale's borderline clinical or clinical range (37.3%). In the anxious depressive behaviors subscale, the adolescents scored on average 10.7 (*SD*=5.7), and 12 participants scored within the borderline clinical or clinical range (16.4%). Somatic

complaints subscale scores were on average 8 (*SD*=4.2), with almost half of the sample scoring within the borderline clinical or clinical range (45.3%).

The externalizing behaviors subscale from the YSR was used for adolescents to report their own associated behaviors (Achenbach, 1991). On average, the adolescents scored 18.6 in this subscale (*SD*=10.4). More than half of the adolescents were in the borderline clinical or clinical range in this subscale (54.8%). The YSR externalizing behaviors subscale is built on two subscales inquiring about aggressive behaviors and rule-breaking behaviors. When reporting about their aggressive behaviors, the adolescents scored on average 11.9 (*SD*=6.5), with 25.7% reaching the borderline clinical or clinical range. Rule-breaking scores were high, with an average of 6.7 (*SD*= 4.9). Forty three percent (43.8%) of the sample reached the borderline clinical or clinical range when reporting about their rule breaking behaviors.

Intent

Intent was determined only for the participants completing the in-depth qualitative interviews (n=34). When asked about the suicide attempt objective, slightly more than half of this sub-sample (53%) said that they intended to die. As stated by one participant, "*I threatened to kill myself. Said I was going to kill myself, you're not gonna see me no more, I'm gonna die*." Six participants (18%) shared that they did not seek to die because of their suicidal actions. "*I was like, I didn't, I didn't even want to ki—what are you talking about? I was not trying to attempt suicide.*" These adolescents explained that through their actions they tried to alleviate an internal state of discomfort: *"I just wanted relief of something*." Finally, 10 participants (28%) were unsure of their intent: "*For me, I don't know, like… I wasn't really thinking what was gonna happen. I just did it."*

Attempt Recorders, Settings of Care

The first mental health providers that the adolescents included in this study talked to following their suicide attempts were social workers (65.2%), followed by psychiatrists (33%), others (i.e., phone intake staff, 7.6%), nurses (3%) and general physicians (2.3%). After their suicide attempts, the adolescents received care in emergency rooms (56.4%), outpatient mental health clinics (25.8%), psychiatric inpatient units (11.7%), and other health-care settings (5.8%).

Lifetime Attempts

One-third of adolescents reported that the attempt for which they were enrolled into the study was their first one (32.8%). The other two thirds, however, had made previous suicide attempts (61.7%). A few participants declined to provide information about previous suicide attempts (5.5%). Some had a lifetime suicide history of two attempts (28.9%), while others had attempted between three and five times (30.2%). A few had a lifetime history of more than six attempts (2.6%).

Discussion

Consistent with the existing literature (Borowsky, Ireland & Resnick, 2001), the adolescents in our sample were about 15 years of age at the time of their attempts. As it has been

characterized (Garfinkel et al., 1982), they attempted suicide using means that were available in their homes. While other studies have found drug overdoses to be the most common method to attempt suicide among adolescents (Spirito et al., 1989), cutting was the predominant attempting method in our sample. The majority of the adolescents in our sample chose low lethality methods (e.g., superficial cutting), although slightly more than half stated that they had intended to end their lives. Adding to this paradox, a few of the participants who stated not having any suicidal intent used highly lethal means (e.g., an overdose with more that 70 Tylenols and severe self-cutting). Many girls denied or minimized their suicidal intent, a finding that is consistent with the literature (Wagner et al., 2002). This leads us to wonder if cognitive distortions –that may be developmentally appropriate– affected the expectations that the girls had about their action's outcomes, or if they became confused while trying to disentangle the rationale for their self-harming behaviors.

These findings highlight the challenges encountered by clinicians when trying to distinguish suicidal behaviors of low lethality from other self-harming behaviors (Wagner et al., 2002). This is particularly significant for mental health providers serving adolescent females, because attempts of low lethality are very common among this population (Brent, 1987), and because adolescents often recant their statements of a suicide attempt to avoid hospitalization or the fallout within their families and social networks.

The adolescents described concerning behavioral profiles. Slightly over two-thirds of the participants were within this scale's internalizing and externalizing borderline clinical or clinical range. Interesting contrasts emerged when we compared these self-reported values with the psychiatric diagnosis given to the attempters. For instance, and consistent with the literature (Jacobson et al., 2008; Kelly, Cornelius, & Lynch, 2002), the clinicians diagnosed mood disorders for the majority of attempters. However, the number of mood disorders diagnosed by the clinicians almost doubles the internalizing behaviors that the adolescents reported in the research questionnaires. This may result from the fact that clinicians diagnose when criteria are fully met, which would exclude those subjects reporting borderline clinical ranges profiles. When the girls described their internalizing behaviors, somatic complaint scores were higher than those of withdrawn depressive and anxious depressive behaviors. The clinicians, however, did not seem to capture these somatic complaints as part of the girl's psychiatric diagnosis, as observed by the few medical concerns listed in the Axis III psychiatric diagnosis. Finally, clinicians and adolescents did agree when it came to the girls' anxiety levels.

There is even a greater contrast between the adolescents' reports of externalizing behaviors and the clinical appreciation of the girls' impulse-control issues. The adolescents saw themselves seven times more impulsive and oppositional than the clinicians assessed them to be. The girls' assessment of their impulsivity is in tune with the description of the impulse-control issues common to female suicide attempters whose suicide attempts are of low lethality (Baca–Garcia et al., 2005).

The clinicians did capture the family and environmental stressors associated with Latina adolescents' suicide attempts (Zayas & Pilat, 2008). This may provide further evidence to

the hypothesis that the girls' suicide attempts emerge from conflicts between Latino cultural values and developmentally appropriate autonomy and individuation issues (Zayas et al., 2005). Furthermore, even when almost one quarter of the study participants were born overseas, and all of them were of Latino background, none of the clinicians listed *acculturation problems* as a focus for treatment. In addition, the clinicians omitted including the adolescent's lifetime attempts in the medical records. This is particularly concerning because previous suicide attempts are common among Latina adolescents (CDC, 2010) and are one of the key predictors of completed suicide (Moscicki, 1999). Finally, the clinicians did not see the suicide attempt as a serious symptom or the adolescents as severely mentally ill, as they described the symptoms and clinical presentation of the vast majority of adolescents as "moderate" in the Axis V.

Although the YSR was designed to match behaviorally based clinical syndromes (Achenbach, 1991), previous research comparing self-reports and diagnostic formulations has been inconclusive (Rosenblatt & Rosenblatt, 2002). In our study, the discrepancies observed between the psychiatric diagnosis rates and the adolescents' self-reported behavioral profiles suggest that we need more studies about how Latina adolescent suicide attempters perceive their own behaviors and how these are perceived by mental health professionals. First, and on the adolescents' side, and drawing from the literature on suicide attempters (Boergers, Spirito, & Donaldson, 1998), research should focus on whether the girls' pessimistic overview tints the way in which they assess their behaviors. On the clinicians' side, research should assess if the differences between adolescents' self-reports and psychiatric diagnoses result, for instance, from mental health training biases that lead clinicians to see suicide attempts as emerging only from mood disorders and not from impulse-control problems. This is not an issue exclusive to clinical settings, but also seems to permeate measurement tools. For example, the Youth Risk Behavior Surveillance Survey (CDC, 2010) is structured in a manner such that only those subjects answering "yes" to questions related to mood symptoms are led to questions inquiring about suicide ideation and attempts. Lastly, more needs to be understood about the effect that the clinicians' gender and ethnicity may have on the quality of their psychiatric assessments of Latina adolescent suicide attempters. The literature has shown that the ethnic mismatch between mental health providers and clients has a negative effect on the quality of psychiatric services (Zayas, Cabassa, Perez, & Howard, 2005).

The relationship between suicide and substance-use disorders among young Latinas was of particular interest in this study, as it has been shown that Hispanic females are at significant risk of drug use (Luncheon, Bae, Lurie, & Singh, 2008). Furthermore, substance-use disorders place adolescents at risk of attempting suicide (Kelly et al., 2002). Surprisingly, only one participant in our sample had a substance-abuse related disorder diagnosis. This could be explained by the fact that the average onset of substance abuse-related disorders for Latinas is age 20 (Kessler et al., 2005). Thus, for Latina adolescents, the onset of substance abuse may be subsequent to the establishment of suicidal behavioral patterns.

Confirming what the CDC (2010) has described, the majority of the adolescents included in this study had a lifetime history of two to more than six previous suicide attempts. We do not know if the girls received any medical or mental health services following those earlier

attempts, when those attempts took place, or what their lethality was. This study collected cross-sectional data, and thus we do not know the suicidal trajectories of the enrolled girls after they completed their participation. The literature has described that adolescent suicide attempters commonly re-attempt within the 3–6 months following the first incidence, but also that a first attempt's predictive power of more attempts extends for at least 12 years (Bridge, Goldstein, & Brent, 2006). This finding highlights the need to conduct longitudinal research projects following Latina suicide attempters, as a means to test the suicidal trajectories of this population as well as the taxing effects of these behaviors on the health care system.

In tune with existing studies (Borowsky et al., 2001) the adolescents studied here attempted suicide at an early age. Combining these data with the lifetime history of attempts, and with the likelihood of future incidents, it becomes clear that this group of young females presents unique vulnerabilities. These vulnerabilities may be connected with unidentified developmental risks for Latina adolescents growing up in the US that need further exploration.

Limitations

We are mindful of several limitations to this study. First, our findings come from a small sample size and participants were not randomly selected. The purpose of the study, however, was not to make complex statistical comparisons, but to describe themes emerging from the adolescents' medical charts, their self-reported behavioral profiles in the questionnaires, and their stories as shared with us in the qualitative interviews. Second, not all subjects in the sample completed a qualitative interview, limiting our ability to analyze their intent even further. Third, the medical charts were the sole data source for the adolescents' psychiatric diagnostics. Psychiatric diagnoses obtained from medical charts have been shown to be unreliable (Gilbert, Lowenstein, Koziol-McLain, Barta, & Steiner, 1996). In addition, we lack information about the demographic profiles and training of the professionals that diagnosed the adolescents, or about the collateral data used to inform their diagnostic formulations. These two limitations make it difficult to determine if the discrepancies found between the teen's self reported behavioral profiles and their diagnosis would replicate in other settings. Fourth and finally, the label of "suicide attempter" given to each of the girls in this sample was based on clinical assessments recorded on medical charts. We know nothing about the rationale informing this labeling, or about other data that may have been accessed by clinicians to justify their professional judgments.

Recommendations and Implications

Latina adolescents carry a great risk for suicide attempts. Findings from this study indicate that mental health professionals should explore both internalizing and externalizing behaviors as pathways for suicide attempts among these patients. Further consideration needs to be given to the exploration of somatic complaints and to the assessment of acculturation problems and lifetime attempts when conducting psychiatric assessments of and defining treatment approaches for Latina adolescent suicide attempters. These findings

highlight the importance of future research on the self described behavioral profiles of Latina adolescent suicide attempters and on the clinical assessment of these patients.

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Table 1

Data Sources and Variables

Mixed method study		**Retrospective chart review**
Structured questionnaire (n=76)	**Qualitative interview (n=34)**	**Medical charts (n=76)**
• *Covariates*: Age, country of origen, respondant's self- identifies Hispanic cultural group) • Life time attempts • *Behavioral profile*: Internalizing and externalizing behaviors (YSR, Acherbach, 1991)	• Intent to die	• Psychiatric diagnosis • Attempt version recorders • Settings of care • *Means of the suicidal action* • *Context of the suicidal* action ⇩ • *Attempt lethality*: LSARS (Smith et al., 1984) and LSARS II (Berman et al., 2003)

Table 2

Demographics of Latina Adolescents and Their Suicide Attempts (n=76)

	Mean (SD)	Frequency (%)
Age at interview	15.5 (1.8)	
US Born		58 (76.3%)
Cultural Group		
Puerto Rican		32 (42.1%)
Dominican		24 (31.6%)
Mexican		12 (18.4%)
Other		8 (7.9%)

Table 3

Latina Adolescent Self-reports on Internalizing and Externalizing Behaviors

	Raw Score (SD)	Borderline or Clinical
Internalizing (n=73)	26.0 (11.3)	51 (69.9%)
Withdrawn depressive	7.3 (2.9)	28 (37.3%)
Anxious depression	10.7 (5.7)	12 (16.4%)
Somatic symptoms	8 (4.2)	34 (45.3%)
Externalizing (n=73)	18.6 (10.4)	40 (54.8%)
Aggressive	11.9 (6.5)	19 (25.7%)
Rule Breaking	6.7 (4.9)	32 (43.8%)