

Parent-Adolescent Acculturation Gap and Suicidal Ideation among Adolescents from an Emergency Department

Ana Ortin, Regina Miranda, Lillian Polanco-Roman & David Shaffer

To cite this article: Ana Ortin, Regina Miranda, Lillian Polanco-Roman & David Shaffer (2017): Parent-Adolescent Acculturation Gap and Suicidal Ideation among Adolescents from an Emergency Department, Archives of Suicide Research, DOI: [10.1080/13811118.2017.1372828](https://doi.org/10.1080/13811118.2017.1372828)

To link to this article: <https://doi.org/10.1080/13811118.2017.1372828>



Accepted author version posted online: 21 Sep 2017.
Published online: 08 Jan 2018.



[Submit your article to this journal](#)



Article views: 45



[View related articles](#)



[View Crossmark data](#)



Parent-Adolescent Acculturation Gap and Suicidal Ideation among Adolescents from an Emergency Department

Ana Ortin, Regina Miranda, Lillian Polanco-Roman, and David Shaffer

The objective of this article is to examine the impact of parent-adolescent acculturation gap on vulnerability to suicidal ideation among adolescents presenting to an emergency department with suicidal behavior. A multiethnic sample of adolescents ($n = 43$) and their parents ($n = 43$) completed an acculturation measure, and adolescents reported on emotion reactivity, hopelessness, depressive symptoms, and suicidal ideation. The direction of the association between suicidal ideation and vulnerability variables varied depending on the size of the acculturation gap. Emotion reactivity was more negatively associated with suicidal ideation the larger the parent-adolescent acculturation gap, while hopelessness was more strongly associated with suicidal ideation the smaller the gap, adjusting for depressive symptoms. Assessments of racial/ethnic minority adolescents at risk for suicidal behavior should address parent-adolescent acculturation gaps.

Keywords acculturation, acculturation gap, adolescence, emotion reactivity, hopelessness, suicidal ideation

INTRODUCTION

In the last two decades, racial and ethnic minority adolescents in the United States—particularly Latinas—have shown increasing rates of suicidal ideation (SI) and suicide attempts (SA) (Grunbaum, Lowry, Kann, & Pateman, 2000; Joe, Baser, Neighbors, Caldwell, & Jackson, 2009; Kann et al., 2015). Acculturation—i.e., the process of adapting to the values and norms of a new culture (Berry & Kim, 1988)—may play a unique role in

this enhanced risk for suicidal behavior among adolescents from diverse ethnic backgrounds (Goldston et al., 2008). However, research on acculturation and risk for suicidal behavior in adolescence is mixed. While some studies have found that high acculturation, or identification with the host culture—as measured by adolescent reports—is associated with higher rates of SI and SA in community and clinical samples (Castle, Conner, Kaukeinen, & Tu, 2011; Joe et al., 2009; Ng, 1996; Peña et al., 2008; Wong & Maffini,

2011), other studies have found the opposite association of low acculturation associated with higher risk for suicidal behavior (Lau, Jernewall, Zane, & Myers, 2002; Olvera, 2001). One study of a clinical sample did not find differences on an acculturation scale when comparing outpatient Latina girls with recent SAs to Latinas without any SA, along with their respective mothers, and other studies have found no association (Zayas, Bright, Alvarez-Sanchez, & Cabassa, 2009).

Some researchers have argued that as adolescents get more acculturated to American values of freedom and exploration, they engage in riskier behavior, such as alcohol and substance use, which, in turn, increases their risk of suicide (Peña et al., 2008; Swanson, Linskey, Quintero-Salinas, Pumariega, & Holzer, 1992; Vega, Gil, Warheit, Apospori, & Zimmerman, 1993). Highly acculturated adolescents may also relinquish strong ties to their communities, including communities of faith (e.g., churches), recognized protective factors against suicide across diverse racial/ethnic groups (Goldston et al., 2008). On the other hand, when low acculturation has been associated with suicidal ideation, this relationship has been attributed to difficulties adjusting to the host culture or establishing a supportive peer network to buffer against intra-familial stressors, especially when the family is the main source of social support (Lau et al., 2002; Olvera, 2001).

Another reason for these mixed findings may have to do with how acculturation is measured—i.e., primarily from the adolescent's perspective. However, the process of acculturation is embedded within the family. Parents and adolescents adapt to new cultures at a different pace, creating gaps between their acculturation levels (Smokowski, Rose, & Bacallao, 2008; Telzer, 2011). The acculturation gap-distress model suggests that acculturation gaps, in which adolescents are highly

acculturated and parents are low in acculturation, can lead to family conflict, which, in turn, can lead to adolescent psychopathology (Szapocznik & Kurtines, 1993). Whether this type of acculturation gap has a direct association with SI has not been explored.

Emotional and cognitive vulnerability variables such as depression, hopelessness, and emotional reactivity have been found to be associated with suicidal ideation and attempts among adolescents from various ethnic groups (e.g., Evans et al., 2016; Nock, Wedig, Holmberg, & Hooley, 2008; Pena, Matthieu, Zayas, Masyn, & Caine, 2012). The association between parent-adolescent acculturation gap and some of these risk factors for suicidal behavior has been examined among Latino and Asian families, providing mixed results. Some studies have found a positive association between acculturation gap and depressive and internalizing symptoms (Costigan & Dokis, 2006; Juang, Syed, & Takagi, 2007; Weaver & Kim, 2008), but others have not (Atzaba-Poria & Pike, 2007; Crane, Ngai, Larson, & Hafen, 2005; Lim, Yeh, Liang, Lau, & McCabe, 2008; Pawliuk et al., 1996; Zhou, 2001). These mixed findings suggest that the acculturation gap effect may not be direct, but that it may increase risk for negative outcomes through its association with other risk variables. In fact, the model that Zayas proposed to explain suicide attempts among Latina girls (Zayas, Lester, Cabassa, & Fortuna, 2005) suggests that acculturation discrepancies between adolescents and parents may exacerbate the impact of underlying psychological vulnerabilities, thus increasing the risk for attempting suicide. This model has not been empirically tested yet.

Given the family dynamics of the acculturation process, the present study sought to build on existing research by examining whether the parent-adolescent acculturation gap would be associated

with severity of SI and depressive symptoms, and other risk factors for suicidal behavior, such as hopelessness and emotion reactivity, in a multiethnic clinical sample of adolescents. A second aim was to examine whether the relationship between these vulnerability variables and severity of SI would be moderated by acculturation gap. Based on Zayas's model, we hypothesized a stronger relationship between adolescent vulnerability variables and severity of SI among dyads in which the parent-adolescent acculturation gap was higher, versus dyads lower in acculturation gap.

METHOD

Participants

Participants were a multiethnic clinical sample of 43 adolescents (81% female), ages 12–19 ($M = 15.0$, $SD = 2.1$) and their parents ($n = 43$), who were consecutively admitted to a pediatric emergency department (ED) in New York City (May 2012–June 2013) for SI ($n = 27$) or SA ($n = 16$), assessed at the ED (first session), and who completed an acculturation measure during a second session 1–3 months later. This sample size yielded at least 80% power to detect medium-to-large effects ($r \geq .40$) for correlations, using two-tailed tests at an alpha of .05, and large effects ($f^2 \geq .35$; $\rho^2 \geq .26$) for multiple regression analyses (with up to four predictors). Racial/ethnic composition of adolescents was primarily Latino/a ($n = 29$, 67%), followed by African-American ($n = 7$, 16%), mixed-race ($n = 5$, 12%), and Asian ($n = 2$, 5%). Most parent informants were mothers (88%). Eighty-seven percent of adolescents were born in the U.S., whereas most of the parents (72% of the mothers and 70% of fathers) were born outside the U.S.

Measures: First Session (Adolescent Self-Report)

Suicidal Ideation. Adolescents reported on their SI within the previous month via the Suicidal Ideation Questionnaire-Junior (SIQ-Jr.) (Reynolds, 1987). This 15-item questionnaire inquires about frequency of SI (ranging from *never* to *almost every day*) in the previous month, including thoughts of being better off dead, killing oneself, and communication of suicidal intent to others. In our sample, the mean severity of SI ($M = 40.1$, $SD = 16.4$) was above the cutoff point of 31 used to suggest need for evaluation of suicide risk. In addition, internal consistency reliability was high ($\alpha = .89$).

Depressive Symptoms. Adolescent depressive symptoms were measured using the Patient Health Questionnaire for Adolescents (PHQ-A) (Johnson, Harris, Spitzer, & Williams, 2002), a 13-item self-report measure that assesses depressive symptoms in the previous 2 weeks consistent with DSM-IV criteria, as experienced from *not at all* to *nearly every day* ($\alpha = .91$ in our sample).

Measures: Second Session

Demographics. Parents completed a survey about adolescents' gender and age, family ethnicity, and nativity (born in the United States vs. born outside the United States). Based on parent and adolescent nativity, we classified them as: 1st generation (both born outside the United States), 2nd generation (only adolescent born in the United States), and 3rd generation (both born in the United States).

Acculturation. Parent and adolescent acculturation was measured via the Cultural Life Style Inventory (CLSI) (Mendoza, 1989), a 26-item adolescent ($\alpha = .83$) and 28-item parent ($\alpha = .95$) measure

that assesses acculturation along 5 dimensions: intrafamilial language use, extrafamilial language use, social affiliations and activities, cultural familiarity and activities, and cultural identification and pride. While the original measure was developed for use with Latino adolescents, in the present study the scale was adapted for use with various cultures by replacing “Latino/Spanish” with “your ethnic and cultural group/language”. The scores ranged from 1 (*Only my ethnic and cultural group/language—low acculturation*) to 5 (*Only English/American—high acculturation*), and 3 as “both equal” (biculturalism). An average score was calculated to reflect overall acculturation. Acculturation gap was computed by subtracting the parent’s acculturation score from the adolescent’s acculturation score, with a higher score indicating a higher acculturation gap.

Hopelessness. The 17-item Hopelessness Scale for Children (HSC) (Kazdin, Rodgers, & Colbus, 1986) was used to assess adolescents’ general negative expectations about the future on a yes/no scale ($\alpha = .88$ in our sample).

Emotion Reactivity. Adolescents completed the Emotion Reactivity Scale (ERS) (Nock et al., 2008), a 21-item measure that assesses how adolescents regularly experience emotions on a scale ranging from *not at all like me* to *completely like me*. It focuses on 3 dimensions of emotion reactivity ($\alpha = .95$ in our sample): emotion sensitivity, intensity/arousal, and persistence.

Procedures

After parents provided informed consent (either in English or Spanish) and adolescents provided assent (if younger than age 18) or consent (if ages 18 or older) (in English), 69 adolescents completed self-report measures, along with an

interview that inquired about their SI or SA, conducted by a Masters-level or Ph.D. level psychologist at the ED (first session).

Fifty-three adolescents returned for a second session within 1–3 months after their first assessment. The timing varied, because while some adolescents were discharged after being seen in the ED, others were referred to inpatient treatment. There were no significant differences by gender, ethnic group, or age between adolescents who completed the second session and those who did not. One adolescent did not complete the SIQ-Jr. in the first session, but completed the PHQ-A and the second session measures.

In the second session, adolescents completed measures of acculturation, hopelessness, and emotion reactivity. Only those adolescents with at least one parent or grandparent born outside the United States completed the CLSI. Parents completed a demographic survey and the acculturation measure along with an interview about their child’s SI or SA that led them to the ED. Parent questionnaires were available in English and Spanish. Consequently, 43 dyads were included in the present study. Of those, 41 were living in the same household and two with a family member at the time of the first session, and had frequent contact with their mothers, who completed the CLSI. Adolescents and their parents were compensated for their participation after sessions were completed. Study procedures received full Institutional Review Board approval from the New York State Psychiatric Institute/Columbia University Medical Center.

Statistical Analyses

T-tests and ANOVAs were used to examine differences by gender, family ethnicity, suicidal behavior at the ED, and generation in level of acculturation and acculturation gap. Pearson correlations

were calculated to examine the associations among continuous variables. Linear regression analyses were conducted to examine the association between risk variables (emotion reactivity and hopelessness, respectively) and severity of SI at different levels of acculturation gap, adjusting for depressive symptoms. Interactions between risk variables and acculturation gap were probed via the MODPROBE procedure for SPSS (Hayes & Matthes, 2009). Variables were centered around their means prior to computing interaction terms (Jaccard & Turrisi, 2003). Regions of significance for the conditional effect of each independent variable on the dependent variable at different values of acculturation gap (the moderator) were identified using the Johnson-Neyman

procedure, which provides more precise regions of significance, compared to the typical procedure of identifying cutoff points at one standard deviation above or below the mean (Hayes, 2013).

RESULTS

Adolescents reported a higher level of acculturation than their parents did ($M = 3.5$, $SD = 0.5$ vs. $M = 2.6$, $SD = 0.8$), $t(42) = 8.59$, $p < .01$. There were no gender differences in either levels of parent and adolescent acculturation or in acculturation gap (see Table 1). There were no differences between adolescents who came to the ED for SI or SA on any of the acculturation variables. Latino adolescents were

TABLE 1. Difference in Acculturation and Acculturation Gap Based on CLSI Scores by Demographic Variables

	Acculturation, youth		Acculturation, parent		Acculturation gap	
	M (SD)	t/F	M (SD)	t/F	M (SD)	t/F
Adolescent Gender						
Girl ($n = 35$)	3.5 (0.5)	-0.66	2.6 (0.9)	-0.85	0.9 (0.7)	0.46
Boy ($n = 8$)	3.6 (0.6)		2.8 (0.5)		0.8 (0.5)	
Family Ethnicity						
Latino ($n = 29$)	3.3 (0.3) ^a	12.46**	2.3 (0.6) ^a	11.66**	1.0 (0.7)	2.24 ⁺
Black ($n = 7$)	4.1 (0.5) ^b		3.7 (0.5) ^b		0.3 (0.5)	
Mixed ($n = 5$)	4.0 (0.6) ^b		2.8 (0.7)		1.2 (0.8)	
Asian ($n = 2$)	4.1 (0.3) ^b		3.1 (0.0)		1.1 (0.4)	
Suicidal Behavior at ED						
SI ($n = 26$)	3.6 (0.6)	1.68	2.7 (0.8)	0.72	1.0 (0.7)	0.42
SA ($n = 17$)	3.4 (0.4)		2.5 (0.8)		0.9 (0.7)	
Generation						
1st ($n = 5$)	3.5 (0.6)	2.55 ⁺	2.2 (0.5) ^a	12.64**	1.2 (0.3) ^a	5.38**
2nd ($n = 28$)	3.4 (0.4)		2.4 (0.7) ^a		1.1 (0.7) ^a	
3rd ($n = 9$)	3.9 (0.7)		3.6 (0.4) ^b		0.3 (0.6) ^b	

⁺ $p < 0.10$; * $p < .05$; ** $p < .01$.

Note. ^{a,b}Indicates groups for which differences were statistically significant at a $p < .05$ level, with (a) indicating the group against which a comparison was made.

Distribution of generation by family ethnicity: Latino dyads: 75% were 2nd generation; 14% were 1st generation, and 11% were 3rd generation; Black dyads: 71% were 1st generation and 29% were 2nd generation; Asian dyads: 50% were 1st and 50% were 2nd generation; and mixed-race dyads: 80% were 2nd generation and 20% were 3rd generation.

significantly less acculturated than were their Black, Asian, and mixed-race peers. Latino parents were significantly less acculturated than Black parents were. There were no significant differences in acculturation gap by ethnic group.

Parents in 3rd-generation dyads were significantly more acculturated than parents in 1st- and 2nd-generation dyads. However, there were no differences among the adolescents by generation. Acculturation gap was significantly lower between parents and adolescents in 3rd-generation dyads than between parents and adolescents in 1st- and 2nd-generation dyads. Most of the Black dyads were 3rd generation (71%), while most of the Latino and mixed-race dyads were 2nd generation (75% and 80%, respectively). Asian dyads were equally distributed between 1st and 2nd generations (see Table 1 footnote).

Parent and adolescent levels of acculturation were positively correlated (see Table 2). Adolescent—but not parent—acculturation was significantly and positively associated with severity of SI. Parent and adolescent acculturation were each negatively correlated with emotion reactivity. Depressive symptoms and hopelessness were positively associated with severity of SI. Finally, acculturation gap was not significantly associated with any of the study

variables, with the exception of parent acculturation.

We examined whether acculturation gap moderated the respective associations between emotion reactivity, hopelessness, and severity of SI in two separate regression analyses, each adjusting for depressive symptoms. In each regression, acculturation gap and either emotion reactivity or hopelessness were entered into a regression model, along with the interaction between acculturation gap and each risk factor. In the first regression, neither acculturation gap, $b = -0.73$, $se = 3.04$, $p = .81$, nor emotion reactivity, $b = -0.13$, $se = 0.11$, $p = .23$, statistically predicted SI, but the interaction between emotion reactivity and acculturation gap was significantly associated with SI, $b = -0.26$, $se = 0.12$, $p = .03$, as were depressive symptoms, $b = 1.22$, $se = 0.31$, $p < .01$, with the overall model accounting for 36% of variability in SI. The conditional effect of emotion reactivity on severity of SI transitioned from non-significant to significant at a (centered) acculturation gap value above 0.42 (74th percentile), $b = -0.24$, $se = 0.12$, $p = .05$, 95% CI [-0.49, 0.00], such that the higher the acculturation gap, the more strongly negative the relationship between emotion reactivity and severity of SI (see Figure 1). In the second regression,

TABLE 2. Correlations among Study Variables

	M (SD)	1	2	3	4	5	6	7
1. Acculturation, Youth	3.5 (0.5)	...						
2. Acculturation, Parent	2.6 (0.8)	.51**	...					
3. Acculturation gap	0.9 (0.7)	.18	-.75**	...				
4. Severity of SI	40.1 (16.2)	.37*	.16	.10	...			
5. Depressive sx	16.3 (7.1)	-.06	-.19	.17	.50**	...		
6. Hopelessness	7.3 (4.8)	.10	.04	.03	.43**	.35*	...	
7. Emotion Reactivity	38.5 (19.9)	-.39**	-.32*	.06	-.01	.28 ⁺	.13	...

⁺ $p < 0.10$; * $p < .05$; ** $p < .01$.

Significant correlations bolded ($p < .05$).

Note. The SIQ-Jr was completed by 42 adolescents; thus, one missing value was replaced by the mean in the bivariate correlations involving SI.

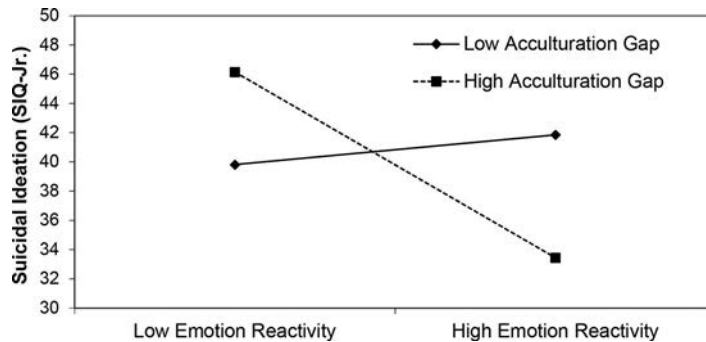


FIGURE 1. Interaction between emotion reactivity and acculturation gap.

depressive symptoms were associated with SI, $b = 0.87$, $se = 0.32$, $p < .01$, but neither acculturation gap, $b = 0.52$, $se = 2.96$, $p = .86$, nor hopelessness, $b = 0.78$, $se = 0.47$, $p = .11$, statistically predicted SI. The interaction between hopelessness and acculturation gap emerged as a trend, $b = -1.36$, $se = 0.76$, $p = .08$, with the overall model accounting for 38% of variability in SI. The conditional effect of hopelessness on severity of SI transitioned from non-significant to significant at (centered) acculturation gap values below -0.11 (47th percentile), $b = 0.93$, $se = 0.46$, $p = .05$, 95% CI [0.00, 1.86], such that the lower the acculturation gap, the more strongly positive the relationship between hopelessness and severity of SI (see Figure 2).

DISCUSSION

To our knowledge, this is the first study to examine the association between parent-adolescent acculturation gap and severity of SI in a clinical sample of adolescents. Our findings suggest that although parent-adolescent acculturation gap was not associated with severity of SI, the strength and direction of the association between SI and risk variables varied depending on how parents and adolescents differed on acculturation.

Consistent with existing research, adolescent acculturation was positively associated with severity of SI (Ng, 1996; Pena et al., 2008; Wong & Maffini, 2011), whereas parent acculturation and

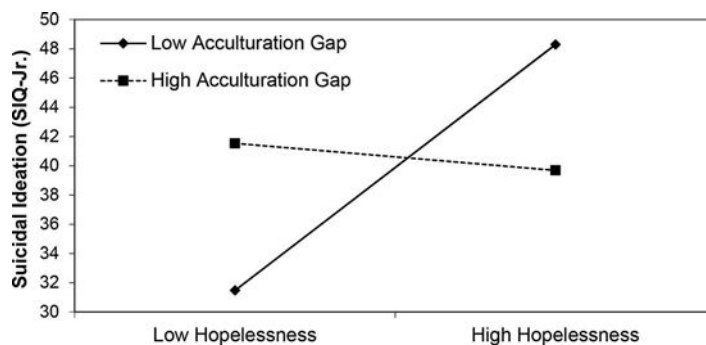


FIGURE 2. Interaction between hopelessness and acculturation gap.

acculturation gap were not associated with adolescents' SI. Our data did not provide support for the acculturation gap-distress model (Szapocznik & Kurtines, 1993), which would predict greater associations with severity of SI at a higher acculturation gap. Our findings are, however, consistent with other studies that have not found support for this model (Bacallao & Smokowski, 2007; Costigan & Dokis, 2006; Lim et al., 2008; Pasch et al., 2006). A recent review concluded that in acculturation gaps in which youth are more acculturated than their parents, youth seem to engage in less maladaptive behavior compared to youth that experience other types of acculturation gaps (i.e., when both parent and youth are both high or low in acculturation or gaps involving parents higher in acculturation than youth) (Telzer, 2011). Similarly, Cano et al. (2015) found that adolescents with higher U.S. identification than their caregivers reported lower levels of depressive symptoms, and that there was no prospective association between U.S. parent-adolescent discrepancy scores and youth health risk outcomes (Cano et al., 2015).

Drawing on Zayas's model, we hypothesized that dyads in which adolescents were more acculturated than their parents would be expected to have a stronger risk profile than adolescents whose acculturation levels are similar to those of their parents (Zayas et al., 2005). We found that the association of hopelessness and emotion reactivity with severity of SI varied by size of parent-adolescent acculturation gap but not in the expected direction. The association between emotion reactivity and severity of suicidal ideation was more strongly negative the higher the acculturation gap (i.e., the lower in acculturation parents were in relation to adolescents). In contrast, hopelessness was more strongly associated with severity of SI the lower the parent-adolescent acculturation gap, suggesting that when both

parents and adolescents are higher in acculturation, higher levels of hopelessness increase vulnerability to SI, while having a higher acculturation gap from parents may buffer against the effects of hopelessness on severity of SI. Although the interaction between acculturation gap and hopelessness emerged as a trend, these findings suggest that when parents and adolescents are equally highly acculturated to U.S. culture, risk factors for SI identified among white adolescents may also be risk factors among racial and ethnic minority adolescents.

Other factors that are directly related to family dynamics may contribute to risk for SI among dyads with a high acculturation gap. When adolescents have higher levels of acculturation than their parents, this may lead to a decreased ability to communicate in the same language or growing disparities in values (i.e., collectivistic vs. individualistic values) within the family (Hwang & Wood, 2009; Phinney, Ong, & Madden, 2000). A failure to deal with these acculturation discrepancies may compromise family cohesion and parenting practices and contribute to family conflict (Costigan & Dokis, 2006; Martinez, 2006; Smokowski et al., 2008). In turn, family conflict may increase risk for SI among adolescents the more highly acculturated they are in comparison to their parents. Zayas and Gulbas (2012) proposed that given the limited means with which to communicate feelings of distress resulting from family-related conflict, Latina teens attempt suicide as their ability to tolerate distress deteriorates (Zayas & Gulbas, 2012). The effect of a high acculturation gap on risk for SI and SAs may depend on whether it engenders family conflict and stress. Indeed, one recent study found that adolescents' perceived stress related to acculturation gaps was associated with suicidal ideation among adolescent boys and with self-harm behavior among adolescent girls (Cervantes, Goldbach, Varela, &

Santisteban, 2014). Within the framework of the Interpersonal Theory of Suicide (Joiner, 2005; Stewart, Eaddy, Horton, Hughes, & Kennard, 2017), discrepancies in acculturation and a distancing from core collectivistic familial values may also lead to increasing feelings of alienation and unmet needs to belong, resulting in an active wish to die and eventual transition to a suicide attempt and death by suicide (for a review of evidence of the applicability of the Interpersonal Theory of Suicide in adolescence, see Stewart et al., 2017).

Alternatively, our data suggest that larger gaps may be protective in given circumstances. Cultural context, such as ethnic background, may affect the value that people assign to an emotion, depending on what is considered desirable in that cultural context (Mauss & Butler, 2010; Soto, Levenson, & Ebling, 2005). Latinos and African-Americans tend to rate emotions more intensely than do white individuals (Matsumoto, 1993; Scollon, Diener, Oishi, & Biswas-Diener, 2004), and greater emotional expression may thus be more normative and valued in these cultures. Given that the majority of our sample belonged to at least one of these two ethnic groups, the cultural context of emotional expression may explain the negative association between parent and adolescent acculturation and adolescent emotion reactivity, along with the negative association between emotion reactivity and severity of SI among adolescents in dyads with a high acculturation gap. In sum, our findings suggest that although an acculturation gap does not directly impact severity of SI, it may increase or decrease risk for suicidal ideation through its association with other vulnerability variables. These findings highlight the importance of taking into consideration culture and ethnic background in research on adolescent suicidal ideation and behavior.

Strengths of this study include the preponderance of racial/ethnic minority

adolescents in the sample and the inclusion of both parent and adolescent reports on acculturation. There are a number of limitations, including limited power (given the small sample size) to examine differences by specific racial/ethnic group and the study's cross-sectional design, which did not allow for an examination of directionality. A larger sample of dyads from each racial/ethnic group would help determine whether these findings are similar among different racial/ethnic groups, versus more characteristic among Latino dyads, the most prevalent racial/ethnic group in the present sample. Future research should also expand on the dimensional definition of acculturation and examine the role of biculturalism in parent-adolescent acculturation gaps, given recent evidence that biculturalism is associated with positive psychological outcomes (Nguyen & Benet-Martinez, 2013). Similar to other adolescent studies, the majority of parent informants were mothers (88%), and thus, future studies should determine whether the results are generalizable to fathers or other main caregivers. In addition, the sample may not generalize beyond adolescents who seek treatment in an ED. Future research should examine these relations in larger clinical and community samples. Finally, severity of SI and acculturation were measured at different time points, although we assume that acculturation is relatively stable over the course of weeks.

Clinical Implications

Previous research has identified culturally related risks (i.e., acculturative stress, perceived ethnic discrimination) and protective factors (i.e., ethnic identity) to be associated with suicidal behavior among adolescents (Cho & Haslam, 2010; Hovey & King, 1996). The present findings suggest that parent-adolescent acculturation gap may affect the association

between SI and risk factors such as emotion reactivity and hopelessness. Thus, clinical assessments for suicide risk among at-risk racial/ethnic minority adolescents should take into account not only the degree to which adolescents have acculturated, but also whether their level of acculturation is similar or different from that of their parents. Further, clinicians working with suicidal adolescents from diverse backgrounds should include parents in treatment and address emotion regulation and interpersonal skills in relation to their respective culturally related experiences.

In fact, family-oriented intervention programs that focus on the acculturation process between parents and their teenage children have already been shown to reduce vulnerability to risky behaviors, including suicidal behavior (Coatsworth, Pantin, & Szapocznik, 2002; Zayas & Pilat, 2008). A better understanding of how cognitive and emotional factors impact this relation may provide further insight into the intersection between family-related conflict, acculturation, and risk for suicidal behavior among racial/ethnic minority adolescents.

AUTHOR NOTE

Ana Ortin, Department of Psychology, Hunter College and The Graduate Center, City University of New York and Division of Child and Adolescent Psychiatry, New York State Psychiatric Institute, Columbia University Medical Center, New York, NY.

Regina Miranda, Department of Psychology, Hunter College and The Graduate Center, City University of New York, New York, NY.

Lillian Polanco-Roman, Department of Psychology, The Graduate Center, City University of New York, New York, NY.

David Shaffer, Division of Child and Adolescent Psychiatry, New York State

Psychiatric Institute, Columbia University Medical Center, New York, NY.

Correspondence concerning this article should be addressed to Dr. Regina Miranda, Department of Psychology, Hunter College, City University of New York, 695 Park Ave., Room 611HN, New York, NY 10065. E-mail: regina.miranda@hunter.cuny.edu

FUNDING

This study was funded by the Carmel Hill Foundation. The authors have no conflicts of interest to disclose.

REFERENCES

- Atzaba-Poria, N., & Pike, A. (2007). Are ethnic minority adolescents at risk for problem behaviour? Acculturation and intergenerational acculturation discrepancies in early adolescence. *British Journal of Developmental Psychology, 25*, 527–541.
- Bacallao, M. L., & Smokowski, P. R. (2007). The costs of getting ahead: Mexican family system changes after immigration. *Family Relations, 56*, 52–66.
- Berry, J. W., & Kim, U. (1988). Acculturation and mental health. In P. Dasen, J. W. Berry, & N. Sartorius (Eds.), *Health and cross-cultural psychology* (pp. 207–236). Newbury Park: Sage.
- Cano, M. A., Schwartz, S. J., Castillo, L. G., Unger, J. B., Huang, S., Zamboanga, B. L., ... Des Rosiers, S. E. (2015). Health risk behaviors and depressive symptoms among Hispanic adolescents: Examining acculturation discrepancies and family functioning. *Journal of Family Psychology, 30*, 254–265.
- Castle, K., Conner, K., Kaukeinen, K., & Tu, X. (2011). Perceived racism, discrimination, and acculturation in suicidal ideation and suicide attempts among black young adults. *Suicide and Life-Threatening Behavior, 41*, 342–351.
- Cervantes, R. C., Goldbach, J. T., Varela, A., & Santisteban, D. A. (2014). Self-harm among Hispanic adolescents: Investigating the role of culture-related stressors. *Journal of Adolescent Health, 55*, 633–639.

- Cho, Y. B., & Haslam, N. (2010). Suicidal ideation and distress among immigrant adolescents: The role of acculturation, life stress, and social support. *Journal of Youth and Adolescence, 39*, 370–379.
- Coatsworth, J. D., Pantin, H., & Szapocznik, J. (2002). Familias Unidas: A family-centered ecodevelopmental intervention to reduce risk for problem behavior among Hispanic adolescents. *Clinical Child and Family Psychology Review, 5*, 113–132.
- Costigan, C. L., & Dokis, D. P. (2006). Relations between parent–child acculturation differences and adjustment within immigrant Chinese families. *Child Development, 77*, 1252–1267.
- Crane, D. R., Ngai, S. W., Larson, J. H., & Hafen, M. (2005). The influence of family functioning and parent-adolescent acculturation on North American Chinese adolescent outcomes. *Family Relations, 54*, 400–410.
- Evans, S. C., Blossom, J. B., Canter, K. S., Poppert-Cordts, K., Kanine, R., Garcia, A., & Roberts, M. C. (2016). Self-reported emotion reactivity among early adolescent girls: Evidence for convergent and discriminant validity in an urban community sample. *Behavior Therapy, 47*, 299–311.
- Goldston, D. B., Molock, S. D., Whitbeck, L. B., Murakami, J. L., Zayas, L. H., & Hall, G. C. (2008). Cultural considerations in adolescent suicide prevention and psychosocial treatment. *American Psychologist, 63*, 14–31.
- Grunbaum, J. A., Lowry, R., Kann, L., & Pateman, B. (2000). Prevalence of health risk behaviors among Asian American/Pacific Islander high school students. *Journal of Adolescent Health, 27*, 322–330.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Hayes, A. F., & Matthes, J. (2009). Computational procedures for probing interactions in OLS and logistic regression: SPSS and SAS implementations. *Behavior Research Methods, 41*, 924–936.
- Hovey, J. D., & King, C. A. (1996). Acculturative stress, depression, and suicidal ideation among immigrant and second-generation Latino adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*, 1183–1192.
- Hwang, W. C., & Wood, J. J. (2009). Acculturative family distancing: Links with self-reported symptomatology among Asian Americans and Latinos. *Child Psychiatry & Human Development, 40*, 123–138.
- Jaccard, J., & Turrisi, R. (2003). *Interaction effects in multiple regression*. Newbury Park: Sage.
- Joe, S., Baser, R. S., Neighbors, H. W., Caldwell, C. H., & Jackson, J. S. (2009). 12-month and lifetime prevalence of suicide attempts among black adolescents in the National Survey of American Life. *Journal of the American Academy of Child and Adolescent Psychiatry, 48*, 271–282.
- Johnson, J. G., Harris, E. S., Spitzer, R. L., & Williams, J. B. (2002). The patient health questionnaire for adolescents: Validation of an instrument for the assessment of mental disorders among adolescent primary care patients. *Journal of Adolescent Health, 30*, 196–204.
- Joiner, T. (2005). *Why people die by suicide*. Cambridge, MA: Harvard University Press.
- Juang, L. P., Syed, M., & Takagi, M. (2007). Intergenerational discrepancies of parental control among Chinese American families: Links to family conflict and adolescent depressive symptoms. *Journal of Adolescence, 30*, 965–975.
- Kann, L., McManus, T., Harris, W. A., Shanklin, S. L., Flint, K. H., Hawkins, J., ... Zaza, S. (2015). Youth risk behavior surveillance—United States, 2016. *Morbidity and Mortality Weekly Report, 65*, 1–174.
- Kazdin, A. E., Rodgers, A., & Colbus, D. (1986). The hopelessness scale for children: Psychometric characteristics and concurrent validity. *Journal of Consulting and Clinical Psychology, 54*, 241.
- Lau, A. S., Jernewall, N. M., Zane, N., & Myers, H. F. (2002). Correlates of suicidal behaviors among Asian American outpatient youths. *Cultural Diversity & Ethnic Minority Psychology, 8*, 199–213.
- Lim, S.-L., Yeh, M., Liang, J., Lau, A. S., & McCabe, K. (2008). Acculturation gap, intergenerational conflict, parenting style, and youth distress in immigrant Chinese American families. *Marriage & Family Review, 45*, 84–106.
- Martinez, C. R. (2006). Effects of differential family acculturation on Latino adolescent substance use. *Family Relations, 55*, 306–317.
- Matsumoto, D. (1993). Ethnic differences in affect intensity, emotion judgments, display rule attitudes, and self-reported emotional expression in an American sample. *Motivation and Emotion, 17*, 107–123.
- Mauss, I. B., & Butler, E. A. (2010). Cultural context moderates the relationship between emotion

- control values and cardiovascular challenge versus threat responses. *Biological Psychology*, 84, 521–530.
- Mendoza, R. H. (1989). An empirical scale to measure type and degree of acculturation in Mexican American adolescents and adults. *Journal of Cross-Cultural Psychology*, 20, 372–385.
- Ng, B. (1996). Characteristics of 61 Mexican American adolescents who attempted suicide. *Hispanic Journal of Behavioral Sciences*, 18, 3–12.
- Nguyen, A.-M. T. D., & Benet-Martinez, V. (2013). Biculturalism and adjustment: A meta-analysis. *Journal of Cross-Cultural Psychology*, 44, 122–159.
- Nock, M. K., Wedig, M. M., Holmberg, E. B., & Hooley, J. M. (2008). The emotion reactivity scale: Development, evaluation, and relation to self-injurious thoughts and behaviors. *Behavior Therapy*, 39, 107–116.
- Olvera, R. L. (2001). Suicidal ideation in Hispanic and mixed-ancestry adolescents. *Suicide and Life-Threatening Behavior*, 31, 416–427.
- Pasch, L. A., Deardorff, J., Tschann, J. M., Flores, E., Penilla, C., & Pantoja, P. (2006). Acculturation, parent-adolescent conflict, and adolescent adjustment in Mexican American families. *Family Process*, 45, 75–86.
- Pawliuk, N., Grizenko, N., Chan-Yip, A., Gantous, P., Mathew, J., & Nguyen, D. (1996). Acculturation style and psychological functioning in children of immigrants. *American Journal of Orthopsychiatry*, 66, 111.
- Peña, J. B., Matthieu, M. M., Zayas, L. H., Masyn, K. E., & Caine, E. D. (2012). Co-occurring risk behaviors among White, Black, and Hispanic U.S. high school adolescents with suicide attempts requiring medical attention, 1999–2007: Implications for future prevention initiatives. *Social Psychiatry and Psychiatric Epidemiology*, 47, 29–42.
- Peña, J. B., Wyman, P. A., Brown, C. H., Matthieu, M. M., Olivares, T. E., Hartel, D., & Zayas, L. H. (2008). Immigration generation status and its association with suicide attempts, substance use, and depressive symptoms among Latino adolescents in the USA. *Prevention Science*, 9, 299–310.
- Phinney, J. S., Ong, A., & Madden, T. (2000). Cultural values and intergenerational value discrepancies in immigrant and non-immigrant families. *Child Development*, 71, 528–539.
- Reynolds, W. M. (1987). *Suicidal ideation questionnaire (SIQ)*. Odessa, FL: Psychological Assessment Resources.
- Scollon, C. N., Diener, E., Oishi, S., & Biswas-Diener, R. (2004). Emotions across cultures and methods. *Journal of Cross-Cultural Psychology*, 35, 304–326.
- Smokowski, P. R., Rose, R., & Bacallao, M. L. (2008). Acculturation and Latino family processes: How cultural involvement, biculturalism, and acculturation gaps influence family dynamics. *Family Relations*, 57, 295–308.
- Soto, J. A., Levenson, R. W., & Ebling, R. (2005). Cultures of moderation and expression: Emotional experience, behavior, and physiology in Chinese Americans and Mexican Americans. *Emotion*, 5, 154.
- Stewart, S. M., Eaddy, M., Horton, S. E., Hughes, J., & Kennard, B. (2017). The validity of the interpersonal theory of suicide in adolescence: A review. *Journal of Clinical Child & Adolescent Psychology*, 46, 437–449.
- Swanson, J. W., Linskey, A. O., Quintero-Salinas, R., Pumariega, A. J., & Holzer, C. E. (1992). A binational school survey of depressive symptoms, drug use, and suicidal ideation. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31, 669–678.
- Szapocznik, J., & Kurtines, W. M. (1993). Family psychology and cultural diversity: Opportunities for theory, research, and application. *The American Psychologist*, 48, 400–407.
- Telzer, E. H. (2011). Expanding the acculturation gap distress model: An integrative review of research. *Human Development*, 53, 313–340.
- Vega, W. A., Gil, A., Warheit, G., Apospori, E., & Zimmerman, R. (1993). The relationship of drug use to suicide ideation and attempts among African American, Hispanic, and white non-Hispanic male adolescents. *Suicide and Life-Threatening Behavior*, 23, 110–119.
- Weaver, S. R., & Kim, S. Y. (2008). A person-centered approach to studying the linkages among parent-child differences in cultural orientation, supportive parenting, and adolescent depressive symptoms in Chinese American families. *Journal of Youth and Adolescence*, 37, 36–49.
- Wong, Y. J., & Maffini, C. S. (2011). Predictors of Asian American adolescents' suicide attempts: A latent class regression analysis. *Journal of Youth and Adolescence*, 40, 1453–1464.
- Zayas, L. H., Bright, C. L., Alvarez-Sanchez, T., & Cabassa, L. J. (2009). Acculturation, familism and mother-daughter relations among suicidal

- and non-suicidal adolescent Latinas. *The Journal of Primary Prevention*, 30, 351–369.
- Zayas, L. H., & Gulbas, L. E. (2012). Are suicide attempts by young Latinas a cultural idiom of distress? *Transcultural Psychiatry*, 49, 718–734.
- Zayas, L. H., Lester, R. J., Cabassa, L. J., & Fortuna, L. R. (2005). Why do so many Latina teens attempt suicide? A conceptual model for research. *American Journal of Orthopsychiatry*, 75, 275–287.
- Zayas, L. H., & Pilat, A. M. (2008). Suicidal behavior in Latinas: Explanatory cultural factors and implications for intervention. *Suicide and Life-Threatening Behavior*, 38, 334–342.
- Zhou, M. (2001). Straddling different worlds: The acculturation of Vietnamese refugee children. In R. G. Rumbaut & A. Portes (Eds.), *Ethnicities: Children of immigrants in America* (pp. 187–227). Berkeley, CA: University of California Press and Russell Sage Foundation Press.