

Burdensomeness, Belongingness, and Suicidal Desire Among Hispanic/Latino Individuals: Examining the Effect of Ethnicity in the Interpersonal Theory of Suicide

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ABSTRACT. The interpersonal theory of suicide states that thwarted belongingness, a perception of social isolation and lack of social connectedness, and perceived burdensomeness, a perception of being a burden on others, are important factors related to the development of suicidal desire. A strong familial connection, characteristic of Hispanic/Latino cultures, is associated with lower levels of thwarted belongingness. In this study, we tested the ability of thwarted belongingness, perceived burdensomeness, and ethnicity to determine current levels of suicidal desire among Hispanic/Latino and non-Hispanic White undergraduate college students. Based on previous research and the typically high value placed on family, Hispanic/Latinos were predicted to experience lower levels of thwarted belongingness and suicidal desire. Hispanic/Latino status was hypothesized to moderate the role of thwarted belongingness and perceived burdensomeness such that Hispanic/Latinos who reported high levels of thwarted belongingness and perceived burdensomeness respectively would experience the highest levels of suicidal desire. Undergraduate college students ($N = 336$), 24% Hispanic/Latino and 76% non-Hispanic White, completed self-report measures. Ethnic groups significantly differed on their current suicidal desire, $t(193.81) = 2.21, p = .03$, and perceived burdensomeness, $t(229.74) = 3.06, p = .003$, but not thwarted belongingness, $t(333) = 0.74, p = .46$. Ethnicity moderated the effect of thwarted belongingness and perceived burdensomeness on current suicidal desire. However, the direction of the effect was opposite of the predictions. These findings highlight the role of ethnicity to moderate the effects of established suicide risk factors, thwarted belongingness, and perceived burdensomeness in college students.

The World Health Organization (2014) estimated that the suicide rate for those between the ages of 15 to 29 for the U.S. was 12.7 (per 100,000) while the rates for Mexico and Spain were 6.0 and 3.0, respectively. In 2014, people of Hispanic/Latino origin accounted for 17.4% of the United States (U.S.) population, making them the largest ethnic or racial minority in the country (United States Census Bureau, 2015). By 2060, it is estimated that the Hispanic/Latino population will reach 119 million, constituting approximately

28.6% of the U.S. population (United States Census Bureau, 2015). Overall, suicide ranks as the 11th leading cause of death among Hispanic/Latinos in the United States, with suicide ranking as the 10th overall cause of death for the general population of all ages in 2014 (American Association of Suicidology, 2012; Centers for Disease Control [CDC], 2015). Among those between the ages of 15 to 24, suicide is the third leading cause of death among Hispanic/Latinos and the second cause of death for the general population in this age range

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(Hoyert & Xu, 2012). Despite the population growth of Hispanic/Latinos in the United States, suicide research on Hispanic/Latinos remains scant. Theoretically informed hypotheses regarding differences in suicide rates for Hispanic/Latinos may be useful in addressing this research gap.

The interpersonal theory of suicide (ITS) states that, in order for individuals to die by suicide, they must have a desire for suicide and the capability to act on these suicidal desires (Joiner, 2005). According to this theory, suicidal desire develops from feelings of thwarted belongingness and the perception of burdensomeness. Thwarted belongingness is described as a perception of social isolation that consists of experiencing a lack of social connectedness; an individual experiencing thwarted belongingness often has thoughts such as “I am alone” and “There are no people I can turn to in times of need.” Perceived burdensomeness is described as a perception that one is a burden on close others such as family members; an individual experiencing perceived burdensomeness may have thoughts such as “I make things worse for the people in my life.” (Joiner, 2005; Van Orden et al., 2010; Van Orden, Witte, Gordon, Bender, & Joiner, 2008).

Past research has demonstrated that an unmet need to belong can contribute to numerous deleterious effects in cognition and behavior such as impairments in self-regulation including the loss of self-control and aggressive behaviors (Baumeister, DeWall, Ciarocco, & Twenge, 2005; Twenge, Baumeister, Tice, & Stucke, 2001). The need to belong and feel connected to others is often regarded as a fundamental human psychological need, which if unmet, can lead to feelings of loneliness, a lack of social support, and social withdrawal (Joiner, 2005; Maslow, 1970; Van Orden et al., 2010). This is also evident in the elevated rates of suicide that widowed, single, and divorced individuals experience compared to married individuals (Lee & DeMaris, 2007; Stack & Wasserman, 1993). According to Maslow’s (1970) hierarchy of needs theory, the desire to belong is an essential need that people are motivated to fulfill, surpassed by only safety and physiological needs. Furthermore, research has found that regular social interactions increase one’s sense of belonging. However, these regular interactions must be with those to whom one feels connected with and perceived as supportive (Baumeister & Leary, 1995). This increased sense of belonging can generally be obtained by having a meaningful connection to family (Davidson,

Wingate, Rasmussen, & Sligh, 2009). Despite suicide being one of the top causes of death among Hispanic/Latino youth, previous research has not yet examined possible risk factors and buffers for suicidal desire among Hispanic/Latino individuals specifically within the context of the ITS.

Hispanic/Latino communities place high value on the nuclear family as well as the extended family (Lugo Steidel & Contreras, 2003; Sabogal, Marín, Otero-Sabogal, Marín, & Perez-Stable, 1987). Hispanic/Latino children are socialized to be family oriented and to place obligation to family over themselves (Lugo Steidel & Contreras, 2003). A close relationship with family is a protective factor for suicidality among both male and female Hispanic/Latinos (Oquendo et al., 2005; Ungemack & Guarnaccia, 1998). Similarly, parent and family connectedness and bonding are resiliency factors for suicidal ideation in both male and female Hispanic/Latino youth (Borowsky, Ireland, & Resnik, 2001). Among Hispanic/Latino males, a good relationship with parents is a protective factor for suicidality (Locke & Newcomb, 2005). Family is regarded as the most important institution by Hispanic/Latinos originating from many different countries, and many Hispanic/Latinos report feeling a strong attachment and identification with their families, along with feelings of loyalty and solidarity (Knight et al., 2010; Sabogal et al., 1987).

These core cultural values are often termed *familismo* (familism) in Hispanic/Latino research, which is a shared core value present among many different Hispanic/Latino subgroups (Sabogal et al., 1987). The concept of familismo consists of a focus on family, which includes loyalty, unity, obligation to nuclear and extended family, placing the family as the most important unit, and placing family goals over individual goals (Laria & Lewis-Fernández, 2006; Lugo Steidel & Contreras, 2003; Sabogal et al., 1987; Schwartz et al., 2010). Previous research has shown that young Hispanic/Latinos endorse greater values of familism compared to their European American peers (Fulgini, Tseng, & Lam, 1999). However, past research has not examined the extent to which cultural differences between Hispanic/Latinos and their non-Hispanic peers affect their experiences of thwarted belongingness, perceived burdensomeness, and suicidal desire.

These strong family values may account for the relatively better mental health (e.g. lower rates of suicide) of Hispanic/Latinos compared to other groups (American Association of Suicidology,

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2012; CDC, 2015; Hoyert & Xu, 2012; Oquendo et al., 2005; Sabogal et al., 1987; Ungemack & Guarnaccia, 1998). This is likely because Hispanic/Latino family members provide a support system to each other where they can rely on each other for emotional support and external sources of support on a regular basis (Almeida, Molnar, Kawachi, & Subramanian, 2009; Sabogal et al., 1987). Among the benefits resulting from familismo, Hispanic/Latinos reported receiving social support and financial assistance from family members (Calzada, Tamis-LeMonda, & Yoshikawa, 2012).

Research has also shown that experiencing a reduction in familial responsibilities and interactions increases suicide risk (Stack & Wasserman, 1993). Responsibility to family is among the six primary factors that Linehan, Goodstein, Nielsen, and Chiles (1983) identified as major reasons to live. If individuals have a perceived responsibility or obligation to their families, they are less likely to think about suicide (Bakhiyi, Calati, Guillaume, & Courtet, 2016).

Research has also postulated that the role of sacrifice for the family in Hispanic/Latino culture may have a negative effect on individuals who migrate away from their family members in order to improve family conditions back home (Rojas, Grzywacz, Zapata Roblyer, Crain, & Cervantes, 2016). These individuals may experience a loss of social support, perceived isolation, and express ambivalence that their separation from family was actually accompanied by benefits to their family (Rojas et al., 2016). Therefore, it is important to examine the role of familism in Hispanic/Latino ethnicity because it may elucidate a thorough understanding of Hispanic/Latino suicidality.

Family conflict, such as perceiving that one is a burden on family, is a strong risk factor for suicidal behavior (Van Orden et al., 2010). The ITS posits that individuals who experience family conflict, unemployment, and physical illness have a higher likelihood of developing perceptions of burdensomeness (Joiner, 2005; Van Orden et al., 2010). However, the stress of unemployment itself is not enough to develop feelings of burdensomeness. Individuals must feel as if they have become a liability to close others (i.e., family members) in order for burdensomeness to be manifested (Van Orden et al., 2010). The belief that one is expendable and unwanted also comprises the perception of burdensomeness. This can be seen in individuals who have been recently incarcerated or those who are homeless (Van Orden et al., 2010).

Furthermore, research has demonstrated that the perception of responsibility to family is prominent within various Hispanic/Latino cultures, but not within non-Hispanic/Latino cultures (Campos, Ullman, Aguilera, & Dunkel Schetter, 2014; Garza & Cramer, 2011). The duration of residence with family members and family support reduces the probability of suicide attempts among Hispanic/Latino youths (Maimon, Browning, & Brooks-Gunn, 2010). Additionally, having more family members is associated with a decreased risk of lethal suicidal behavior (Van Orden et al., 2010).

The bond that Hispanic/Latino family members share is so strong that members who do not follow through with the expectation to provide support in times of need are viewed as violating significant cultural norms (Kao & Travis, 2005). Research conducted by Oquendo and colleagues (2005) found that Hispanic/Latinos displayed lower levels of suicidal ideation and greater feeling of responsibility to family compared to non-Hispanic Whites. Given that providing and receiving familial support is a facet of the familismo values in Hispanic/Latino culture, adherence to familismo values could make a significant contribution to the feeling of belongingness among Hispanic/Latino individuals. Moreover, lower levels of family support and higher levels of cultural family conflict and family burden have been significantly associated with higher psychological distress (Darghouth, Brody, & Alegría, 2015). Molina & Alcántara (2013) have found this effect to be particularly salient to both U.S.-born Latinas and immigrant Latinas who may be particularly socialized to place family needs and concerns over their own. Their research indicated that the potential gains of perceived familial support and cohesion may be superseded by the negative effects of familial conflict and burdensomeness.

In the present study, we investigated the specific role of Hispanic/Latino ethnicity within the context of thwarted belongingness, perceived burdensomeness, and suicidal desire in a college population. We hypothesized that Hispanic/Latinos would display lower levels of suicidal desire and lower levels of thwarted belongingness compared to non-Hispanic Whites. We also hypothesized that (a) there would be an interaction between Hispanic/Latino status (ethnicity) and thwarted belongingness such that Hispanic/Latinos with higher levels of thwarted belongingness would report stronger suicidal thoughts, urges, and plans, and (b) there would be an interaction between Hispanic/Latino

status (ethnicity) and perceived burdensomeness such that Hispanic/Latinos with higher levels of perceived burdensomeness would report stronger suicidal thoughts, urges, and plans.

Methods

Participants

Participants were 336 undergraduate students (73% women, $n = 245$) enrolled in General Psychology courses in a large, urban, southeastern research university in the United States. The mean age of the sample was 18.99 ($SD = 1.21$, ranging from 18 to 23). Seventy-six percent of participants identified their ethnicity as non-Hispanic and their race as White ($n = 254$), and 24% identified their ethnicity as Hispanic/Latino ($n = 82$). Among those who identified their ethnicity as Hispanic/Latino, 55% identified their race as White ($n = 45$) and 45% identified their race as Hispanic/Latino ($n = 37$). For the purpose of this study, all who identified ethnically as Hispanic/Latino regardless of race and all non-Hispanic White were included. Because cultural ethnicity was hypothesized as the moderator of suicide risk and not specifically race, anyone who identified as Hispanic/Latino was included within the “Hispanic/Latino” sample. Hispanic/Latinos were chosen to be compared to non-Hispanic Whites because research has demonstrated that non-Hispanic Whites have the lowest familism scores compared to Hispanic/Latinos, African Americans, and Asians (Schwartz, Zamboanga, Rodriguez, & Wang, 2007). Further, non-Hispanic Whites mainly inhabit Western cultures, which are largely individualistic in nature, whereas non-Western cultures are largely collectivistic in nature (Schwartz, Montgomery, & Briones, 2006). Additionally, for the purpose of comparing Hispanic/Latinos to the majority culture of the local area, only Hispanic/Latinos and non-Hispanic Whites were included in this study.

Procedure

Participants first reviewed and electronically signed a statement of informed consent that included the general purpose, procedures, and goals of the study and then completed all other measures described below using the Qualtrics survey platform. The consent form stated that the purpose of the study was to investigate the relationship between an individual’s thought process in response to an upsetting event and certain behaviors, particularly suicidal self-directed violence. Responses to questions about suicide were screened for severe

and imminent suicide risk by a clinically trained graduate student. If necessary, the participant was contacted for further evaluation and resources. No individual risk assessments were required. All participants completed this study for course credit with the opportunity to complete alternative assignments for credit instead of research participation. Contact information for mental health services was provided to all participants and the Florida State University institutional review board approved all procedures.

Materials and Measures

Demographics. A demographics questionnaire captured age, sex, and primary racial and ethnic identities. Due to the possible need for suicide risk assessments based on responses to suicide items, all participants were required to provide a phone number where they could be reached. Their contact information was not retained once it was determined that they did not need to be contacted for a risk assessment.

Interpersonal Needs Questionnaire (INQ). The INQ subscale of thwarted belongingness (INQ-TB) was designed to measure participants’ current beliefs of the extent to which they feel disconnected from others (Van Orden, Cukrowicz, Witte, & Joiner, 2012). The perceived burdensomeness subscale of the INQ (INQ-PB) was designed to measure current beliefs about the extent to which participants’ feel they are a burden on the people in their lives. Nine items measured belongingness (e.g., “These days, other people care about me”) and six items measured burdensomeness (e.g., “These days, the people in my life would be happier without me”). Participants indicated the degree to which each item was true for them recently (on a 7-point Likert-type scale). Scores were coded such that higher numbers reflect higher levels of thwarted belongingness and perceived burdensomeness. For the sample used in this study, internal consistency coefficients were strong for the thwarted belongingness items ($\alpha = .90$), as well as the perceived burdensomeness items ($\alpha = .93$). This measure has also repeatedly demonstrated strong levels of construct validity in a variety of populations (Hagan, Podlogar, Chu, & Joiner, 2015; Khazem, Law, Green, & Anestis, 2015; Van Orden et al., 2012).

Depressive Symptom Inventory-Suicidality Subscale (DSI-SS). The DSI-SS is a 4-item self-report questionnaire assessing the frequency and intensity of suicidal thoughts and desire during the

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previous 2 weeks (Joiner, Pfaff, & Acres, 2002). The four item groups are suicidal thoughts, suicidal plans, control over suicidal thoughts, and urges to kill oneself. Each item group is comprised of four possible answers (e.g., “I do not have thoughts of killing myself”). Scores are coded on a 4-point ordinal scale with each item ranging from 0 to 3 and total scores ranging from 0 to 12 with higher scores reflecting increased severity of present suicidal desire. Previous research has demonstrated good reliability and validity characteristics among groups of 15- to 24-year-olds as a screening tool for suicide risk (Hagan et al., 2015; Joiner et al., 2002). Internal consistency coefficients for the sample used in this study were strong ($\alpha = .83$).

Data Analytic Strategy

To test the association between Hispanic/Latino status (compared to non-Hispanic Whites) and suicidal desire, thwarted belongingness, and perceived burdensomeness, we conducted Pearson’s *r* correlations and independent-samples *t* tests. To measure the interaction between Hispanic/Latino status, thwarted belongingness, and perceived burdensomeness on levels of suicidal desire, we conducted multiple hierarchical linear regression analyses on the interaction of ethnicity (i.e., Hispanic/Latino or non-Hispanic White), thwarted belongingness, and perceived burdensomeness, which were all centered at their respective means, with suicidal desire as the dependent variable (Frazier, Tix, & Barron, 2004). Step 1 of the model included the mean-centered scores of the predictor and moderator variables (i.e., thwarted belongingness and ethnicity or perceived burdensomeness and ethnicity). In Step 2, we entered the interaction term of the predictor and moderator variables. This interaction term was calculated by multiplying the mean-centered scores of the two predictor variables. For all analyses, ethnicity was coded as 0 = non-Hispanic White and 1 = Hispanic.

Results

Table 1 presents the correlations between the variables included in all analyses¹. The correlation between ethnicity and suicidal desire was not statistically significant ($r = -.10, p = .06$). The correlation between ethnicity and thwarted belongingness was also not statistically significant ($r = -.04, p = .46$), although there was a significant association between Hispanic/Latino ethnicity and lower levels of perceived burdensomeness as predicted ($r = -.13, p = .02$). To further evaluate these hypothesized relationships and to account for the possibility of unequal variances between groups, we conducted independent-sample *t* tests. When accounting for unequal variances in suicidal desire and perceived burdensomeness, Hispanic/Latinos had significantly lower mean scores on current suicidal desire ($M = 0.12, SD = 0.98, t(193.81) = 2.21, p = .03$, and perceived burdensomeness ($M = 6.76, SD = 2.36, t(229.74) = 3.06, p = .003$, than non-Hispanic Whites ($M_{Desire} = 0.34, SD = 0.69; M_{Burden} = 7.89, SD = 4.07$). The groups did not differ on their thwarted belongingness scores ($M_{Hisp} = 17.70, SD = 7.87; M_{White} = 18.57, SD = 9.71, t(333) = 0.74, p = .46$).

The regression analysis assessing the interaction of ethnicity and thwarted belongingness, $F(3, 331) = 22.34, p < .001$, explained 16.8% ($AdjR^2 = .17$) of the variance in suicidal desire scores in the sample. A significant negative interaction was found between ethnicity and thwarted belongingness such that non-Hispanic Whites with elevated levels of thwarted belongingness had notably higher suicidal desire scores, contrary to the direction of the predicted effect (see Table 2). The regression analysis assessing the interaction of ethnicity and perceived burdensomeness, $F(3, 328) = 29.79, p < .001$, explained 21.4% ($AdjR^2 = .21$) of the variance in suicidal desire scores in the sample. In addition, a significant negative interaction was found between ethnicity and perceived burdensomeness such that non-Hispanic Whites with elevated levels of perceived burdensomeness had notably higher suicidal desire scores, also contrary to the direction of the predicted effect. Both of these models demonstrated small effects ($f^2 = .02$ for both models). Multicollinearity was likely not a problem in either model because the lowest tolerance score was .75 and the highest Variance Inflation Factor score (Cohen, Cohen, West, & Aiken, 2002) was 1.04.

¹Sex was not correlated with any of the included variables (*p* values ranged from .37 to .97) so it was not included in any of the analyses.

	<i>M</i>	<i>SD</i>	1	2	3	4
1. Ethnicity ^a	-	-	--			
2. Thwarted Belongingness	18.36	9.29	-.04	--		
3. Perceived Burdensomeness	7.62	3.76	-.13*	.59**	--	
4. DSI-SS	0.29	0.92	-.10	.38**	.44**	--

Note: **p* < .05. ***p* < .001. DSI-SS = Depressive Symptom Inventory-Suicidality Subscale
^aEthnicity is coded (0 = non-Hispanic White, 1 = Hispanic)

Discussion

The purpose of this study was to examine the differences in suicidal desire between Hispanic/Latinos and non-Hispanic Whites to determine if possible differences exist that influence suicide risk. We examined the role of thwarted belongingness, perceived burdensomeness, and ethnicity in predicting levels of suicidal desire among college students. Our results indicated that Hispanic/Latinos and non-Hispanic Whites displayed different levels of suicidal desire and perceived burdensomeness. Based on previous research (Oquendo et al., 2005), and their lower rates of suicide fatalities (American Association of Suicidology, 2012; CDC, 2015), we hypothesized that Hispanic/Latinos would report lower levels of suicidal desire and lower levels of thwarted belongingness compared to non-Hispanic Whites. This hypothesis was partially supported. Hispanic/Latinos reported lower levels of suicidal desire and perceived burdensomeness compared to non-Hispanic Whites, but they did not display lower levels of thwarted belongingness.

We also hypothesized that there would be an interaction between ethnicity, thwarted belongingness, and perceived burdensomeness when predicting levels of suicidal desire among Hispanic/Latinos who reported high levels of thwarted belongingness and perceived burdensomeness having the highest levels of suicidal desire. This hypothesis was also partially supported. Although the predicted interactions were identified, the direction of the effect was the opposite of what was predicted, indicating that non-Hispanic Whites with elevated levels of thwarted belongingness and perceived burdensomeness reported elevated levels of suicidal desire, rather than Hispanic/Latinos.

Prior research has suggested that one of the various cultural differences between Hispanic/Latinos and non-Hispanic Whites is their strong connection to family and culture (Sabogal et al., 1987). Non-Hispanic Whites primarily adhere to the Western individualistic orientation and Hispanic/Latinos adhere to the non-Western collectivistic orientation typically found in a variety of Central and Southern American countries (Christiansen, 1997; Triandis, 1989). This collectivistic perspective that grants importance to family and communal values can help an individual achieve a higher sense of belonging.

In contrast, the idiocentrism that is often associated with an individualistic perspective can lead to smaller and less satisfying social support networks, less skill in managing both one's own and others' emotions, lower intentions to seek help from family and friends for personal and suicidal problems, and higher levels of hopelessness and suicidal ideation (Scott, Ciarrochi, & Deane, 2004). However, results from the current study did not identify a difference in levels of thwarted belongingness between Hispanic/Latino college students and non-Hispanic White college students.

Our study did support previous research, indicating that Hispanic/Latinos experience lower levels of suicidal ideation (Oquendo et al., 2005). Likewise, this study found that Hispanic/Latino college students may experience overall lower levels of perceived burdensomeness compared to their non-Hispanic White counterparts. The reasons for why Hispanic/Latinos displayed lower levels of suicidal desire and perceived burdensomeness compared to non-Hispanic Whites, yet did not display lower levels of thwarted belongingness are

TABLE 2

Hierarchical Multiple Linear Regression Models Predicting Current Suicidal Desire (DSI-SS)

Predictors entered in set	Thwarted Belongingness							Perceived Burdensomeness						
	<i>b</i>	<i>SE</i>	β	<i>p</i>	<i>R</i> ²	ΔR^2	<i>f</i> ²	<i>b</i>	<i>SE</i>	β	<i>p</i>	<i>R</i> ²	ΔR^2	<i>f</i> ²
Step 1					0.154	.154***						0.197	.197***	
Ethnicity ^a	-0.185	0.108	-0.086	.089				-0.092	0.108	-0.043	.394			
TB/PB	0.038	0.005	0.379	< .001				0.107	0.012	-0.436	< .001			
Step 2					0.168	.014*	0.02					0.214	.017**	0.02
Ethnicity	-0.214	0.108	-0.100	.049				-0.197	0.114	-0.091	.084			
TB/PB	0.036	0.005	0.359	< .001				0.091	0.014	0.369	< .001			
Ethnicity x TB/PB	-0.031	0.013	-0.122	.017				-0.112	0.042	-0.153	.007			

Note. DSI-SS = Depressive Symptom Inventory-Suicidality Subscale; TB = Thwarted Belongingness; PB = Perceived Burdensomeness

p* < .05. *p* < .01. ****p* < .001.

^aEthnicity is coded (0 = non-Hispanic White, 1 = Hispanic)

unclear and would require further investigation.

Because Hispanic/Latinos strongly value family unity, we anticipated that, when problems occur and Hispanic/Latinos feel like a burden or no longer feel that they belong, they would feel these effects more than individuals from more individualistic groups (i.e., non-Hispanic Whites). However, our results indicated that non-Hispanic White college students reported increased levels of suicidal desire in the face of perceptions of burdensomeness and thwarted belongingness. This may be indicative of the general risk of experiencing a lack of social connection, in that those with fewer or weaker interpersonal connections are at higher risk when connections are damaged.

There were several limitations in this study. One was that this study was limited to a sample of nonclinical college students, most of whom were White, with relatively few Hispanic/Latinos ($n = 82$). Another limitation was that in the present university (Florida State University, 2015), along with the majority of undergraduate institutions in the United States (National Center for Educational Statistics, 2015), women outnumbered men in the study sample. While this is not representative of the gender split for the nation, it is consistent with the sample from which it was drawn. Furthermore, all data were collected by self-report measures at one time point, restricting our ability to make predictions about future behavior.

Additionally, we used self-reported ethnicity as a proxy for individualistic and collectivistic beliefs and actions because these data were not available. Because we did not include a measure for acculturation, it is possible that the sample of Hispanic/Latino participants could have been acculturated to American culture and therefore might have adhered less to their origin culture. Research has shown that family value and obligation decreased in importance as acculturation and exposure to the U.S. culture increased (Sabogal et al., 1987), and that higher levels of acculturation are associated with increased risk for suicidal ideation and attempts (Escobar & Vega, 2000). Those who self-identified as Hispanic/Latino in the current study may have already acculturated to American culture and may not adhere closely to their Hispanic/Latino culture. This could explain the null finding of differences in thwarted belongingness between Hispanic/Latinos and non-Hispanic Whites. Although, research has shown that highly acculturated Hispanic/Latinos adhere less to familism in general, highly acculturated Hispanic/Latino

individuals do not differentiate with less acculturated individuals in the specific belief of familial support—the belief that family members have an obligation to offer emotional and financial support to each other (Lugo Steidel & Contreras, 2003).

The findings may be different with a larger and more diverse sample that would include nonstudents, individuals from other age groups, a more equal population sex representation, and a higher percentage of Hispanic/Latino individuals. Future research should use a measure of familism and cultural orientation along with ethnicity, and compare familism and ethnicity directly with burdensomeness, belongingness, and suicidal desire. Doing so may provide a clear perspective on the effects that familism and Hispanic culture may have on suicidal desire and the ITS. Furthermore, more diverse samples with more variability in age and education would provide information that may be more representative of the population. Another future direction could be to incorporate measures of acculturation in order to examine the effects of acculturation on perceived burdensomeness, thwarted belongingness, and suicidal desire. A viable option would be to draw the Hispanic/Latino sample directly from their origin country (e.g., Mexico, Cuba, or Puerto Rico) because Latin American countries tend to have lower suicide rates compared to Hispanic/Latinos residing in the United States (World Health Organization, 2014). Future research should also examine the possible differences between Hispanic/Latino undergraduate college students and Hispanic/Latino young adults who are not college students; it is unknown whether Hispanic/Latino undergraduate college students are more acculturated compared to other Hispanic/Latino young adults who are not college students.

Furthermore, previous research has shown that a score of 2 on the DSI-SS is an appropriate cut-off score to indicate clinical risk in a nonclinical population (von Glischinski, Teismann, Prinz, Gebauer, & Hirschfeld, 2016). Because the average scores in our sample were less than 1, this may indicate that the scores were too low to accurately make a conclusion regarding serious suicide risk, which is the critical outcome predicted by the ITS (Joiner, 2005; von Glischinski et al., 2016). Despite the ITS's primary goal of serious suicide risk prediction, it also predicts less severe forms of suicidal ideation based solely upon the presence of thwarted belongingness and perceived burdensomeness in the absence of hopelessness (Van Orden et al., 2010).

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Because the scores on the DSI-SS in our sample were comparable to those in previous research, which found support for the propositions of the ITS, this factor alone may not be responsible for these findings (Hagan et al., 2015).

Finally, because analyses on this topic had not been published previous to the beginning of our research, we were unable to conduct accurate, a priori, power analyses. Post-hoc power analyses conducted in GPower 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) indicated that both interaction analyses were underpowered (i.e., power < .80). Specifically, this study had a power level of .56 for the thwarted belongingness interaction and a power level of .68 for the perceived burdensomeness interaction. Low power might have limited our ability to detect a true effect of ethnicity as a moderator of the effect of interpersonal factors on suicidal desire in this sample. Future studies should investigate these variables in larger, and more clinically impaired, sample to more thoroughly assess the role of Hispanic/Latino ethnicity within the ITS.

An interesting direction for future research would be to assess the effects of Hispanic/Latino belongingness and burdensomeness on suicidal desire with hopelessness as an added variable. This could be achieved by adding a scale for general hopelessness or, in keeping with the ITS predictions, evaluating hopelessness specifically regarding thwarted belongingness and perceived burdensomeness (Joiner, 2005; Van Orden et al., 2010). Research has shown that high levels of hopelessness play an integral role as a moderator between the effects of thwarted belongingness, perceived burdensomeness, and suicidal desire (Hagan et al., 2015). Additionally, the ITS posits that, in order for active suicidal desire to develop, an individual must perceive their experience of thwarted belongingness and perceived burdensomeness to be stable and unchanging (i.e., feel hopeless; Van Orden et al., 2010). Research has also demonstrated that, among Hispanic/Latinos, hopelessness was positively correlated with suicidal ideation (Cheref, Lane, Polanco-Roman, Gadol, & Miranda, 2015). Furthermore, young Hispanic/Latinos typically report higher rates of feeling hopeless in the past year compared to young non-Hispanic Whites (Isasi, Rastogi, & Molina, 2016). As the Hispanic/Latino population is growing in large numbers, and suicide is a leading cause of death, it is important to examine the protective and risk factors of suicidal desire among Hispanic/

Latinos and the possible underlying cultural facets of suicide in this population. Examining the interaction of all three risk-factor variables (i.e., hopelessness, thwarted belongingness, and perceived burdensomeness) may lead to a more thorough assessment of suicidal risk/desire among the Hispanic/Latino population.

References

- Almeida, J., Molnar, B. E., Kawachi, I., & Subramanian, S. V. (2009). Ethnicity and nativity status as determinants of perceived social support: Testing the concept of familism. *Social Science and Medicine*, *68*, 1852–1858. <http://dx.doi.org/10.1016/j.socscimed.2009.02.029>
- American Association of Suicidology. (2012). *Hispanic suicide fact sheet*. Retrieved March 8, 2016, from <http://www.suicidology.org/Portals/14/docs/Resources/FactSheets/Hispanic2012.pdf>
- Bakhiyi, C. L., Calati, R., Guillaume, S., & Courtet, P. (2016). Do reasons for living protect against suicidal thoughts and behaviors? A systematic review of the literature. *Journal of Psychiatric Research*, *77*, 92–108. <http://dx.doi.org/10.1016/j.jpsychires.2016.02.019>
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497–529. <http://dx.doi.org/10.1037/0033-2909.117.3.497>
- Baumeister, R. F., DeWall, C. N., Ciarocco, N. J., & Twenge, J. M. (2005). Social exclusion impairs self-regulation. *Journal of Personality and Social Psychology*, *88*, 589–604. <http://dx.doi.org/10.1037/0022-3514.88.4.589>
- Borowsky, I. W., Ireland, M., & Resnick, M. D. (2001). Adolescent suicide attempts: Risks and protectors. *Pediatrics*, *107*, 485–493.
- Calzada, E. J., Tamis-LeMonda, C. S., & Yoshikawa, H. (2012). Familism in Mexican and Dominican families from low-income, urban communities. *Journal of Family Issues*, *34*, 1696–1724. <http://dx.doi.org/10.1177/0192513x12460218>
- Campos, B., Ullman, J. B., Aguilera, A., & Dunkel Schetter, C. (2014). Familism and psychological health: The intervening role of closeness and social support. *Cultural Diversity and Ethnic Minority Psychology*, *20*, 191–201. <http://dx.doi.org/10.1037/a0034094>
- Centers for Disease Control and Prevention. (2015). *Suicide Facts at a Glance 2015*. Retrieved March 8, 2016, from <http://www.cdc.gov/violenceprevention/pdf/suicide-datasheet-a.pdf>
- Cheref, S., Lane, R., Polanco-Roman, L., Gadol, E., & Miranda, R. (2015). Suicidal ideation among racial/ethnic minorities: Moderating effects of rumination and depressive symptoms. *Cultural Diversity and Ethnic Minority Psychology*, *21*, 31–40. <http://dx.doi.org/10.1037/a0037139>
- Christiansen, T. F. (1996). *The acculturation gap: A study of relations among acculturation, acculturative stress, and coping responses for latino adolescents and parents* (Master's thesis). Available from ProQuest Dissertations & Theses Global. (304304017)
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2002). *Applied multiple regression-correlation analysis for the behavioral sciences* (3rd ed., pp. 423–424). United States: L. Erlbaum Associates.
- Darghouth, S., Brody, L., & Alegria, M. (2015). Does marriage matter? Marital status, family processes, and psychological distress among Latino men and women. *Hispanic Journal of Behavioral Sciences*, *37*, 482–502. <http://dx.doi.org/10.1177/0739986315606947>
- Davidson, C. L., Wingate, L. R., Rasmussen, K. A., & Slish, M. L. (2009). Hope as a predictor of interpersonal suicide risk. *Suicide and Life-Threatening Behavior*, *39*, 499–507. <https://doi.org/10.1521/suli.2009.39.5.499>
- Escobar, J. I., & Vega, W. A. (2000). Mental health and immigration's AAAs: Where are we and where do we go from here? *The Journal of Nervous and Mental Disease*, *188*, 736–740. <http://dx.doi.org/10.1097/00005053-200011000-00003>
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression

SPRING 2017

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PSYCHOLOGICAL
RESEARCH

- analyses. *Behavior Research Methods*, 41, 1149–1160. <http://dx.doi.org/10.3758/BRM.41.4.1149>
- Florida State University. (2015). *About Our Students*. Retrieved December 11, 2016, from <https://www.fsu.edu/students/>
- Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51, 115–134. <http://dx.doi.org/10.1037/0022-0167.51.1.115>
- Fulgini, A. J., Tseng, V., & Lam, M. (1999). Attitudes toward family obligations among American adolescents with Asian, Latin American, and European backgrounds. *Child Development*, 70, 1030–1044. <http://dx.doi.org/10.1111/1467-8624.00075>
- Garza, M. J., & Cramer, R. J. (2011). The Spanish Reasons for Living Inventory (SRFL-I): Factor structure and association with suicide risk among Spanish speaking Hispanics. *Archives of Suicide Research*, 15, 354–371. <http://dx.doi.org/10.1080/13811118.2011.615704>
- Hagan, C. R., Podlogar, M. C., Chu, C., & Joiner, T. E. (2015). Testing the interpersonal theory of suicide: The moderating role of hopelessness. *International Journal of Cognitive Therapy*, 8, 99–113. <http://dx.doi.org/10.1521/ijct.2015.8.2.99>
- Hoyert, D. L., & Xu, J. (2012). Deaths: Preliminary data for 2011. *National Vital Statistics Reports*, 61, 1–64.
- Isasi, C. R., Rastogi, D., & Molina, K. (2016). Health issues in Hispanic/Latino youth. *Journal of Latina/o Psychology*, 4, 67–82. <http://dx.doi.org/10.1037/lat0000054>
- Joiner, T. (2005). *Why people die by suicide*. Cambridge, MA: Harvard University Press.
- Joiner, T. E., Jr., Pfaff, J. J., & Acres, J. G. (2002). A brief screening tool for the suicidal symptoms in adolescents and young adults in general health settings: Reliability and validity data from the Australian National General Practice Youth Suicide Prevention Project. *Behaviour Research and Therapy*, 40, 471–481. [http://dx.doi.org/10.1016/S0005-7967\(01\)00017-1](http://dx.doi.org/10.1016/S0005-7967(01)00017-1)
- Kao, H. S., & Travis, S. S. (2005). Effects of acculturation and social exchange on the expectations of filial piety among Hispanic/Latino parents of adult children. *Nursing and Health Sciences*, 7, 226–234. <http://dx.doi.org/10.1111/j.1442-2018.2005.00241.x>
- Khazem, L. R., Law, K. C., Green, B. A., & Anestis, M. D. (2015). Examining the relationship between coping strategies and suicidal desire in a sample of United States military personnel. *Comprehensive Psychiatry*, 57, 2–9. <http://dx.doi.org/10.1016/j.comppsy.2014.11.009>
- Knight, G. P., Gonzales, N. A., Saenz, D. S., Bonds, D. D., Germán, M., Dearthoff, J., . . . Updegraff, K. A. (2010). The Mexican American Cultural Values Scales for adolescents and adults. *Journal of Early Adolescence*, 30, 444–481. <http://dx.doi.org/10.1177/0272431609338178>
- Larí, A. J., & Lewis-Fernández, R. (2006). Latino patients. In R. F. Lim (Ed.), *Clinical manual of cultural psychiatry* (pp. 119–173). Arlington, VA: American Psychiatric Publishing, Inc.
- Lee, G. R., & DeMaris, A. (2007). Widowhood, gender, and depression: A longitudinal analysis. *Research on Aging*, 29, 56–72. <http://dx.doi.org/10.1177/0164027506294098>
- Linehan, M. M., Goodstein, J. L., Nielsen, S. L., & Chiles, J. A. (1983). Reasons for staying alive when you are thinking of killing yourself: The reasons for living inventory. *Journal of Consulting and Clinical Psychology*, 51, 276–286. <http://dx.doi.org/10.1037/0022-006X.51.2.276>
- Locke, T. F., & Newcomb, M. D. (2005). Psychosocial predictors and correlates of suicidality in teenage Latino males. *Hispanic Journal of Behavioral Sciences*, 27, 319–336. <http://dx.doi.org/10.1177/0739986305276745>
- Lugo Steidel, A. G., & Contreras, J. M. (2003). A new familism scale for use with Latino populations. *Hispanic Journal of Behavioral Sciences*, 25, 312–330. <http://dx.doi.org/10.1177/0739986303256912>
- Maimon, D., Browning, C. R., & Brooks-Gunn, J. (2010). Collective efficacy, family attachment, and urban adolescent suicide attempts. *Journal of Health and Social Behavior*, 51, 307–324. <http://dx.doi.org/10.1177/0022146510377878>
- Maslow, A. (1970). *Motivation and personality* (2nd ed.). New York, NY: Harper & Row
- Molina, K. M., & Alcántara, C. (2013). Household structure, family ties, and psychological distress among U.S.-born and immigrant Latino women. *Journal of Family Psychology*, 27, 147–158. <http://dx.doi.org/10.1037/a0031135>
- National Center for Educational Statistics (2015). *Total fall enrollment in degree-granting postsecondary institutions, by attendance status, sex, and age: Selected years, 1970 through 2024*. Retrieved December 11, 2016, from http://nces.ed.gov/programs/digest/d14/tables/dt14_303.40.asp?current=yes
- Oquendo, M. A., Dragatsi, D., Harkavy-Friedman, J., Dervic, K., Currier, D., Burke, A. K., . . . Mann, J. J. (2005). Protective factors against suicidal behavior in Latinos. *The Journal of Nervous and Mental Disease*, 193, 438–443. <http://dx.doi.org/10.1097/01.nmd.0000168262.06163.31>
- Rojas, S. M., Grzywacz, J. G., Zapata Roblyer, M. I., Crain, R., & Cervantes, R. C. (2016). Stressors among Hispanic adults from immigrant families in the United States: Familismo as a context for ambivalence. *Cultural Diversity and Ethnic Minority Psychology*, 22, 408–416. <http://dx.doi.org/10.1037/cdp0000082>
- Sabogal, F., Marín, G., Otero-Sabogal, R., Marín, B. V., & Perez-Stable, E. (1987). Hispanic familism and acculturation: What changes and what doesn't? *Hispanic Journal of Behavioral Sciences*, 9, 397–412. <http://dx.doi.org/10.1177/07399863870094003>
- Schwartz, S. J., Montgomery, M. J., & Briones, E. (2006). The role of identity in acculturation among immigrant people: Theoretical propositions, empirical questions, and applied recommendations. *Human Development*, 49, 1–30. <http://dx.doi.org/10.1159/000090300>
- Schwartz, S. J., Weisskirch, R. S., Hurley, E. A., Zamboanga, B. L., Park, I. J. K., Kim, S. Y., . . . Greene, A. D. (2010). Communalism, familism, and filial piety: Are they birds of a collectivist feather? *Cultural Diversity and Ethnic Minority Psychology*, 16, 548–560. <http://dx.doi.org/10.1037/a0021370>
- Schwartz, S. J., Zamboanga, B. L., Rodriguez, L., & Wang, S. C. (2007). The structure of cultural identity in an ethnically diverse sample of emerging adults. *Basic and Applied Social Psychology*, 29, 159–173. <http://dx.doi.org/10.1080/01973530701332229>
- Scott, G., Ciarrochi, J., & Deane, F. P. (2004). Disadvantages of being an individualist in an individualistic culture: Idiocentrism, emotional competence, stress, and mental health. *Australian Psychologist*, 39, 143–153. <http://dx.doi.org/10.1080/00050060410001701861>
- Stack, S., & Wasserman, I. (1993). Marital status, alcohol consumption, and suicide: An analysis of national data. *Journal of Marriage and the Family*, 55, 1018–1024. <http://dx.doi.org/10.2307/352781>
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96, 506–520. <http://dx.doi.org/10.1037/0033-295X.96.3.506>
- Twenge, J. M., Baumeister, R. F., Tice, D. M., & Stucke, T. S. (2001). If you can't join them, beat them: Effects of social exclusion on aggressive behavior. *Journal of Personality and Social Psychology*, 81, 1058–1069. <http://dx.doi.org/10.1037/0022-3514.81.6.1058>
- Ungemack, J. A., & Guarnaccia, P. J. (1998). Suicidal ideation and suicide attempts among Mexican Americans, Puerto Ricans and Cuban Americans. *Transcultural Psychiatry*, 35, 307–327. <http://dx.doi.org/10.1177/136346159803500208>
- United States Census Bureau. (2015). *FFF: Hispanic heritage month 2015*. Retrieved March 9, 2016, from United States Census Bureau: <http://www.census.gov/newsroom/facts-for-features/2015/cb15-ff18.html>
- Van Orden, K. A., Cukrowicz, K. C., Witte, T. K., & Joiner, T. E., Jr. (2012). Thwarted belongingness and perceived burdensomeness: Construct validity and psychometric properties of the Interpersonal Needs Questionnaire. *Psychological Assessment*, 24, 197–215. <http://dx.doi.org/10.1037/a0025358>
- Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner, T. E., Jr. (2010). The interpersonal theory of suicide. *Psychological Review*, 117, 575–600. <http://dx.doi.org/10.1037/a0018697>
- Van Orden, K. A., Witte, T. K., Gordon, K. H., Bender, T. W., & Joiner, T. E., Jr. (2008). Suicidal desire and the capability for suicide: Tests of

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the interpersonal-psychological theory of suicidal behavior among adults. *Journal of Consulting and Clinical Psychology*, 76, 72–83. <http://dx.doi.org/10.1037/0022-006X.76.1.72>

von Glischinski, M., Teismann, T., Prinz, S., Gebauer, J. E., & Hirschfeld, G. (2016). Depressive Symptom Inventory Suicidality Subscale: Optimal cut points for clinical and non-clinical samples. *Clinical Psychology and Psychotherapy*. Advance online publication. <http://dx.doi.org/10.1002/cpp.2007>

World Health Organization. (2014). *Preventing suicide: A global imperative*. Retrieved March 11, 2015, from http://apps.who.int/iris/bitstream/10665/131056/1/9789241564779_eng.pdf

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