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ISSN: 2379-4925 (Print) 2379-4933 (Online) Journal homepage: www.tandfonline.com/journals/uebh20

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To cite this article: Victor Buitron, Gisela Jiménez-Colón & Yovanska Duarté-Vélez (2023) Mental Health Services Use and Social Support Among Latinx Families with Adolescents Who Engage in Suicidal Behavior, Evidence-Based Practice in Child and Adolescent Mental Health, 8:2, 194-205, DOI: 10.1080/23794925.2023.2183433

To link to this article: https://doi.org/10.1080/23794925.2023.2183433

Published online: 03 Mar 2023.

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EVIDENCE-BASED PRACTICE IN CHILD AND ADOLESCENT MENTAL HEALTH
2023, VOL. 8, NO. 2, 194–205
https://doi.org/10.1080/23794925.2023.2183433

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Mental Health Services Use and Social Support Among Latinx Families with Adolescents Who Engage in Suicidal Behavior

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ABSTRACT

Latinx communities experience a significant child mental health disparity. Research is needed to examine mental health services use and social support in Latinx adolescents, with particular attention to acculturative factors and youth who have high levels of clinical severity. The current study examined whether acculturation and enculturation, and related proxies, are associated with prior history of services use and social support in Latinx families with adolescents who had a recent suicidal crisis. Participants were 110 youths, recently admitted to psychiatric hospitalization, ages 12–17 years and their caregivers. Results indicated that approximately 20% of the overall sample did not access any formal mental health services (e.g. outpatient mental health care, primary care support, school staff support) before high acuity hospital care. First-generation status and higher caregiver enculturation were associated with a lower likelihood of formal mental health services use, even when controlling for clinical covariates. Adolescent preference for Spanish was associated with lower social support. Findings suggest that families with higher enculturation and first-generation immigrant families (both caregivers and youth born outside of the U.S.), in the context of severe clinical impairment, experience systemic and sociocultural barriers conducive to limited engagement with mental health support. Implications for improving the accessibility of mental health supports are reviewed.

Factors across socioecological domains create substantial racial and ethnic disparities affecting Latinx families, including reduced access to and engagement with mental health services (Rastogi, Massey-Hastings, Wieling, 2012; Kapke & Gerdes, 2016; Alegría et al., 2022). Current understanding of racial/ethnic disparities in children's mental health services indicates that factors are embedded within four domains: policies, laws, and regulations; institutional systems; neighborhoods/community system; and individual- and family-level factors (Alegría et al., 2022). Such a conceptual framework highlights the interconnection between individual factors (e.g., stress and adversity, acculturation) and broader systems. In order to inform current understanding of disparities in Latinx mental health, research is needed to elucidate how individual and family-level factors interact within and across socioecological systems, particularly among families with high clinical need.

There is a documented child mental health disparity affecting Latinx families. For instance, Latinx adolescents are less likely to use outpatient mental health services (Malhotra et al., 2015), services for depression (NHQD Report 2021), and services for mood and anxiety disorders (Merikangas et al., 2011) compared to their Non-Latinx White counterparts. Latinx children and adolescents also use in-school mental health services at a significantly lower rate than their White counterparts (Locke et al., 2017). Further, Latinx individuals are less likely to have social support outside of the family domain (Chang, Chen, & Alegria, 2014), and utilize informal services (e.g., folk healer, natural healer, spiritualist) for mental health difficulties specifically among those with lower income (Vega et al., 1999).

Acculturation refers to an individual's adaptation process into the mainstream group society and its values, beliefs, and practices; on the other hand, enculturation refers to the correspondence between an individual and their cultural heritage including the relevant values, beliefs, and practices (Kim, 2007). Acculturation and enculturation are thus considered

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This article has been corrected with minor changes. These changes do not impact the academic content of the article.
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to be distinct from one another and have bidimensionality, as opposed to being two ends of a continuum. Acculturation and enculturation by immigrant families are both relevant to the transition to living in the U.S. and can influence engagement with services and support. Low levels of caregiver acculturation may create a barrier to understanding, navigating, and engaging with formal services across settings (e.g., outpatient, school) and can create pressure on adolescents (who are usually more acculturated) to mediate interactions between caregivers and societal systems (Suárez-Orozco et al., 2018). A recent qualitative study with insights from mental health providers in multiple settings underscores that Latinx families confront substantial barriers to mental health services use at the family and community level, including navigating the health system with limited English proficiency (Duarte-Velez, Jimenez-Colon, & Buitron, in preparation). Economic adversity among immigrant Latinx families is a further barrier to accessing services as it is estimated that 32% of immigrant Latinx children live in poverty in the United States (Thiede, Brooks, & Jensen, 2021). Latinx caregivers and adolescents also experience significant stigma toward psychiatric disorders and seeking treatment (De Silva et al., 2020; DuPont-Reyes et al., 2020). Furthermore, forces dictating migration patterns are generally intertwined with trauma, stress, and/or socioeconomic adversity in the country of origin which carries downstream effects for the adaptation to the host societal structures (e.g., health system) and family resilience (Suárez-Orozco et al., 2018). The aforementioned barriers make it difficult for less acculturated Latinx families to engage with lower levels of care, particularly in the context of marked clinical needs (e.g., youth suicidality). That is, Latinx families may be less able to access least-restrictive, cost-effective, least-intensive mental health care (i.e., a stepped care mental health model (Jobes et al., 2018)) such as outpatient therapy, thereby increasing the likelihood of psychiatric emergencies.

Research has examined the degree to which Latinx adolescents affiliate with their cultural heritage (i.e., enculturation) and/or mainstream U.S. culture (i.e., acculturation) are relevant to their psychosocial adjustment. Meta-analysis of the association between acculturation/enculturation and mental health outcomes indicates that certain indicators of acculturation (e.g., mainstream language use) and enculturated identity are associated with better mental health outcomes (Yoon et al., 2013). With regard to Latinx children specifically, research found that lower English proficiency was associated with later externalizing symptoms and that being born in the United States was associated with higher levels of internalizing symptoms (Araújo Dawson & Williams, 2008). Latinx adolescents recruited from the community experienced higher levels of internalizing symptoms in the context of high enculturation and high conflict with caregivers (P. R. Smokowski et al., 2007). Acculturative stress was also found to be correlated with depressive symptoms and suicidal ideation in community dwelling Latinx adolescents (Hovey & King, 1996). Latinx caregiver acculturation was correlated with adolescent social problems, aggression, and anxiety, while higher adolescent enculturation was prospectively associated with better self-esteem, lower hopelessness, lower social problems, and lower aggression (P. Smokowski et al., 2009). Nationally representative data indicated that Latinx adolescents born in the United States were more likely to attempt suicide and engage in substance abuse than foreign-born adolescents (i.e., first-generation youth (Peña et al., 2008)). Thus, while certain indicators of acculturation appear to be protective and instrumental for youth (e.g., mainstream language proficiency), there is an indication that Latinx youth born in the United States encounter worse mental health outcomes compared to their foreign-born counterpart. Furthermore, enculturation appears to be a protective factor under certain contextual conditions (e.g., family cohesion). Within-group research on Latinx youth in the context of marked clinical needs is needed because of the implications of acculturation and enculturation (e.g., knowledge of and attitudes on help-seeking, practical ability to seek and sustain mental health care).

Research on mental health services use and social support among Latinx families and their adolescents is limited. Research indicates that relatively acculturated, English-speaking Latinx caregivers recruited online report using a wide array of services including formal and informal mental health services for their children (Vázquez et al., 2021). First-generation immigrant status and low family English proficiency in multi-ethnic (including Latinx) participants are

both associated with lower child mental health services utilization (Cheng & Lo, 2022). Caregiver years living in the United States is associated with engagement in outpatient services among Latinx adolescents with substance abuse (Santisteban et al., 2005). Relatedly, immigrant Latinx caregivers also report that there are considerable unmet mental health care and social support needs for their children and their community (Ayón, 2014). Informal mental health services (e.g., folk healers, *curanderismo*) have a significant history in Latinx cultures (Barrera & Longoria, 2018; Zacharias, 2006), though very little is known about current informal services use among Latinx adolescents. Recent research found that, among Latinx youth, caregiver acculturation moderated the association between youth internalizing symptoms and mental health services, indicating that higher caregiver acculturation was associated with services use in the context of internalizing symptoms (Galvan & Gudiño, 2021); by elucidating within-group disparities among Latinx families, this recent study highlights the need for further fine-grained work among high-risk subgroups. Thus, there is a need for studies on services use and social support among Latinx families with attention to both acculturation and enculturation, as well as a focus on families who have adolescents with marked clinical needs. The use of mental health services has been an important area of research focus for one subgroup of youth with marked clinical needs: youth who experience suicidality.

There is a foundational understanding of trends in services use among youth who experience suicidality from which the current focus on Latinx youth, acculturation, and enculturation is situated. Research on adolescents who report past year suicidal ideation within an integrated health care system found minimal amounts of general mental health services use (<15% (McCarty et al., 2011)). Among nationally representative samples of adolescents, research similarly indicates that there is minimal to low use of mental health treatment among youth who reported recent suicidal ideation, and roughly half of adolescents who report a suicide attempt in the past 12 months receive any mental health treatment (Husky et al., 2012; Nestor et al., 2016; Pirkis et al., 2003). Among adolescents reporting recent suicidal ideation, there are within-group differences in general mental health services use such that the presence of suicidal behavior and higher levels of depression were associated with higher services use (LeCloux et al., 2016). With regard to broad racial/ethnic disparities among youth experiencing suicidality, research indicates that Latinx adolescents are less likely to receive general mental health services than their White counterpart (Freedenthal, 2007). Outpatient mental health services were also found to be associated with being White and having higher family income (Wu et al., 2010). Collectively, research on youth experiencing suicidality demonstrates that there is a high unmet need for mental health services, and that racial/ethnic and socioeconomic disparities can exacerbate the problem of access to and engagement with care.

The primary research question of the current study is whether acculturation and enculturation are related to prior history of help-seeking in Latinx families with adolescents who had a recent suicidal crisis. The current study examined the association between acculturation and enculturation, language preference, immigrant generation status, services use, and social support seeking among Latinx families with adolescents in high acuity psychiatric care. Services and support were organized as formal (e.g., outpatient, home-based), informal (e.g., alternative practitioner, church-based provider) services, and social support (e.g., family, peers). It is acknowledged that formal and informal services are typically initiated by caregivers, while social support could be initiated by both. For instance, caregivers could encourage their adolescents to seek help from family members and adult friends, but caregivers are usually instrumental in getting appointments and/or transporting their adolescents at the informal and formal levels. Given the novel high-risk sample, fine-grained descriptive information on services use and social support in this high-risk population is first provided. Differences in depressive symptoms and suicidal ideation by generation status (first versus later generation) were also assessed with the purpose of clinically characterizing the sample.

Hypothesis 1: There will be significant differences in formal and informal services use by generational status (first versus later generations) such that those who have a later generation status will be more likely to have a history of formal services, whereas those with later generation status will be less likely to have a history of informal services.

Hypothesis 2: Higher engagement in formal mental health services will be associated with lower adolescent and caregiver enculturation, higher acculturation, and English language preference.

Hypothesis 3: Higher engagement in informal services will be associated with higher adolescent and caregiver enculturation and lower acculturation, and with a Spanish language preference.

Hypothesis 4: Higher engagement in social support will be associated with higher adolescent and caregiver enculturation and lower acculturation.

Findings consistent with the hypotheses would indicate that first-generation immigrant families, families with low acculturation, and families with high enculturation, in the context of high acuity clinical impairment, likely experience systemic and sociocultural barriers conducive to limited engagement with mental health support.

Method

Participants were 110 youths ages 12–17 years (86.4% cisgender female; 100% Hispanic/Latinx; $M_{age} = 14.97$; $SD_{age} = 1.487$) and their caregivers. Gender was reported as cisgender male by 13.6%, transgender male by 3.6%, non-binary by 5.5%, unsure by 2.7%, and other by 0.9% of the sample. Caregiver place of birth was reported as the Dominican Republic by 30.9%, Puerto Rico by 15.5%, Guatemala by 13.8%, Colombia by 4.5%, El Salvador by 3.6%, Mexico by 1.8%, Bolivia by .9%, Ecuador by .9%, and unspecified by 6.4%, while a 21.8% reported the United States (excluding Puerto Rico) as their place of birth. In a structured socioeconomic survey item, a subset of participants (24.5%) reported having insufficient economic resources to cover their expenses, and another (30.8%) reported living paycheck to paycheck. Study participants were youths receiving hospital-based psychiatric care for acute suicidal ideation and behavior (i.e., inpatient or partial hospitalization) and their primary caregiver. Youths and their caregivers were excluded if youths presented with 1) psychosis, 2) substance use disorder, rated severe on the DSM-5, or 3) cognitive impairment represented by self-reported significant learning difficulties. The current battery was administered in the context of baseline assessment for two clinical trials for Latinx youth with suicidal behaviors (K23MH097772, PI: Duarte-Velez; 1R01MD013907, PI: Duarte-Velez) within a hospital system in the northeastern United States. Thus, in the vast majority of the cases, their enrollment in intense psychiatric care was the outcome of a referral from the school system or after a suicidal crisis emergency, not due to caregiver initiative of searching for intensive care for their adolescents.

Measures

Use of services and social support

The Child and Adolescent Services Assessment (CASA (Burns et al., 1997)) is a semi-structured interview administered to caregivers measuring mental health services use and other social support about their adolescents in various domains, including outpatient, primary care, school, religious, alternative practitioner, family, peer, and so on. There are a total of 13 domains assessed which were coded into one of three categories (see Table 2). Questions were specific to the type of service use for mental health problems before adolescents were admitted to inpatient or partial units. Adolescents' enrollment in intensive care was because of a suicidal crisis.

Acculturation and enculturation

The Latinx Biculturality Scale (LBS) was used to assess acculturation and enculturation in Latinx adolescents and caregivers. It is adapted from the Puerto Rican Biculturality scale (Cortes, Rogler, & Malgady, 1994) by changing the term "Puerto Rican" to "Latinos/as" for the specific purpose of this study that enrolled Latinx families from different national backgrounds. Half of the items assess

involvement in the United States mainstream culture (i.e., acculturation) while the other half assess involvement in the Latino/a culture (i.e., enculturation). Each subscale has its own score, with higher scores in each indicating higher acculturation or enculturation. The alpha coefficients in this sample were .65 and .80 for the acculturation and enculturation scales, respectively.

Immigrant generational status

Adolescent and caregiver nativity were used to determine first- and later-generation status for families. Caregivers and adolescents both born outside of the United States (or in Puerto Rico) were considered first-generation families. However, if first-generation caregivers brought their adolescents to the United States (or from Puerto Rico) before they were 6 years old (age for engaging in formal schooling), then these families were coded as second-generation, as formulated in prior literature (Alegria et al., 2007). If one caregiver was born outside of the United States (or in Puerto Rico) and the other in the United States (excluding Puerto Rico), and caregivers were separated, generation status was based on the primary caregiver living with the adolescent. If both caregivers shared custody or were living together, the family was coded as second generation. In a few cases, the primary caregiver was another family member, such as a grandparent or an aunt, and so in those cases the categorization was done using the aforementioned rule applied to the family member. If both adolescents and caregivers were born in the United States (excluding Puerto Rico), they were categorized as a third-generation family. For the purposes of this study, the second and third generations were combined as "Later Generation." Data were coded 1 for the first generation and 2 for the later generation.

Language preference

The question "In general, what language do you prefer to speak?" was used as an interval measure of language preference for adolescents and caregivers. The five possible answers were as follows: "English all the time," "English most of the time," "Spanish and English about the same," "Spanish most of the time," and "Spanish all the time," coded 1 through 5 in the data, respectively.

Youth depressive symptoms

The Child Depression Inventory (CDI (Kovacs, 1985)); is a 27-item youth self-rated measure of depressive symptoms. Each item lists three statements, scored 0 to 2 according to symptom severity. Sample items include "I am sad all the time" and "I feel alone all the time." Higher scores represent higher levels of depressive symptoms. CDI has demonstrated good internal consistency and validity in clinical samples of Latinx youth (e.g. Buitron et al., 2020). The alpha coefficient in this sample was .83.

Youth suicidal ideation

The Suicide Ideation Questionnaire-Junior (SIQ-JR) is a self-report instrument that measures the severity of suicidal ideation with established psychometric properties in clinical adolescent samples, including internal reliability and convergent validity (Reynolds & Mazza, 1999). This scale has been translated into Spanish and demonstrates excellent internal consistency among community and clinical samples of Latinx adolescents (Duarté-Vélez et al., 2018). The alpha coefficient in this sample was .91

Data analysis

Missing data occurred at a minimal frequency: CASA (0%), LBS (2.7%), language preference (0%), immigrant generational status (0%), CDI (<1%), SIQ (0%). Immigrant generation was reported by all participants. Given the minimal frequency of missing data, the data were estimated using listwise deletion. To answer hypothesis 1, Chi-square tests and Fisher's exact tests were used to assess differences between first and later immigrant generational status. To answer hypothesis 2 to 4, bivariate correlations and logistic regression analyses were used. Chi-square tests, Fisher's exact tests, and logistic regression were performed using IBM SPSS version 21.

Results

Descriptive data on all study variables are presented in Tables 1 and 2. Bivariate associations involving interval variables are presented in Table 1. As Table 2 shows, primary sources of mental health support for the overall sample were

Table 1. Means of, standard deviations of, and correlations between study variables.

	1	2	3	4	5	6	7	8	9	10	11	12
1. FS	–	–	–	–	–	–	–	–	–	–	–	–
2. IS	–	–	–	–	–	–	–	–	–	–	–	–
3. Social	–	–	–	–	–	–	–	–	–	–	–	–
4. Gen	–	–	–	–	–	–	–	–	–	–	–	–
5. C-Acc	−.11	−.02	.02	.21*	–	–	–	–	–	–	–	–
6. C-Enc	−.22*	−.08	−.10	−.10	.15	–	–	–	–	–	–	–
7. A-Acc	−.04	−.04	.01	.06	.08	−.04	–	–	–	–	–	–
8. A-Enc	−.003	−.10	.01	−.31*	−.12	.32*	.12	–	–	–	–	–
9. C-LP	−.18	−.14	−.16	−.43*	−.58*	.29*	−.07	.40*	–	–	–	–
10. A-LP	−.14	−.15	−.22*	−.51*	−.12	.32*	.09	.52*	.40*	–	–	–
11. Dep	.21*	.11	.05	.29*	.07	−.12	−.35	−.26*	−24*	−.26*	–	–
12. SI	.24*	.16	.08	.14	.04	−.17	−.27*	−.04	−.11	−.03	.59*	–
Mean	–	–	–	–	22.50	26.49	19.32	21.79	3.44	2.07	27.43	46.38
Range	–	–	–	–	8–32	10–32	11–28	8–28	1–5	1–5	1–49	1–84
SD	–	–	–	–	5.38	4.84	3.63	4.15	1.48	1.06	10.81	20.14

FS: Formal services; IS: Informal services; Social: Social support; Gen: Immigrant generation status; C-Acc: Caregiver acculturation; C-Enc: Caregiver enculturation; A-Acc: Adolescent acculturation; A-Enc: Adolescent enculturation; C-LP: Caregiver language preference; A-LP: Adolescent language preference; Dep: Depressive symptoms; SI: Suicidal ideation. * denotes $p < .05$.

Table 2. Clinical variables, services use, and social support by immigrant generation status.

	First Generation ($n = 26$)	Later Generation ($n = 84$)			
	n (%)	*n (%)*	*X^2 or FET*	*p*	*Effect size (phi)*
Formal Services	15 (58%)	72 (86%)	9.427	**.002**	.293
Residential treatment, group home, foster care	3 (11.5%)	4 (5%)			
Home-based psychiatric care	3 (11.5%)	12 (14.3%)			
Outpatient treatment (psychiatry, psychology, social work)	9 (34.6%)	45 (53.6%)			
School guidance counselor, school psychologist, school social worker	8 (30.8%)	48 (57.1%)			
School programs, special classes	4 (15.4%)	25 (29.8%)			
Family doctor or pediatrician	3 (11.5%)	18 (21.4%)			
Informal Services	1 (4%)	15 (18%)	FET	.111	—
Minister, priest, rabbi, etc.	1 (3.8%)	6 (7.1%)			
Healer, naturopathic doctor, faith healer, curandero, etc.	0 (0%)	0 (0%)			
Crisis hotline	0 (0%)	6 (7.1%)			
Support groups	0 (0%)	3 (3.6%)			
Social Support	11 (42%)	52 (63%)	3.359	.07†	.176
Family members	8 (30.8%)	39 (46.4%)			
Adults outside the family	4 (15.4%)	11 (13.1%)			
Peers	5 (19.2%)	27* (32.5%)			

FET (Fisher's Exact Test) was utilized when cell expected count was less than 5. P-value in bold indicates statistically significant at a .05 level; † indicates trend that is not statistically significant. * indicates $n = 1$ missing in this specific category.

school staff, outpatient mental health professionals (psychology, psychiatry, social work), and family members. Bivariate associations indicated that first-generation adolescents had comparable suicidal ideation to later generation adolescents, but later generation adolescents had statistically significantly higher depressive symptoms. Higher adolescent depressive symptoms and suicidal ideation were also statistically significantly correlated with adolescent formal services use, but not with informal services use or social support.

Hypothesis 1: Youth who have a later generation status will be more likely to have a history of formal services, and those with later generation status will be less likely to have a history of informal services. Table 2 displays contrasts between first and later

immigrant generational status using Chi-square tests, and Fisher's exact tests. First-generation adolescents were statistically significantly less likely to receive formal services compared to later generation adolescents, and the phi coefficient effect size of .293 indicated a small-to-medium effect size. Immigrant generation status was not associated with informal services.

Hypothesis 2: Higher engagement in formal mental health services will be associated with lower adolescent and caregiver enculturation, higher acculturation, and English language preference. Bivariate correlation analyses were used to test the association between language preference and formal services use. There were no statistically significant associations between adolescent and caregiver language preference, and formal services use. Correlation analyses were used to test the association between acculturation and enculturation scale scores, and formal services use. Higher caregiver enculturation was associated with a lower likelihood of adolescents receiving formal services. There were no other statistically significant associations between caregiver/adolescent acculturation and enculturation scales and formal services use. Table 2 shows the correlation analyses corresponding to Hypothesis 2.

Hierarchical logistic regression analyses (see Table 3) were utilized to further examine the association between caregiver enculturation, immigrant generation status, and formal services use with the inclusion of clinical covariates. As aforementioned, both youth depressive symptoms and suicidal ideation were associated with formal services use which prompted their addition to this multivariate model. In model 1, predictors of formal services use were depressive symptoms, suicidal ideation, and caregiver enculturation; higher caregiver enculturation was statistically significantly associated with a lower likelihood of adolescents receiving formal services use controlling for both youth depressive symptoms and suicidal ideation. Model 1 explained 15% of the variance in formal services utilization. In model 2, predictors of formal services use were depressive symptoms, suicidal ideation, caregiver enculturation, and immigrant generation status; both higher caregiver enculturation and first-generation status were statistically significantly associated with formal services use, controlling for depressive symptoms and suicidal ideation. With the addition of immigrant generation status, model 2 explained 25% of the variance in formal services utilization.

Hypothesis 3: Higher engagement in informal services will be associated with higher adolescent and caregiver enculturation and lower acculturation, and with a Spanish language preference. Bivariate correlation analyses were used to test the association between adolescent and caregiver enculturation and acculturation, and informal services use. There were no statistically significant associations between caregiver/adolescent acculturation and enculturation scales or caregiver/adolescent language preference and informal services use. Informal services, as shown in Table 2, were minimally accessed by Latinx families in this overall high-risk sample.

Hypothesis 4: Higher engagement in social support will be associated with higher adolescent and caregiver enculturation and lower acculturation. Bivariate correlations were used to test the associations between adolescent and caregiver enculturation and acculturation, immigrant generation status, and social support. There were no other statistically significant associations between caregiver/adolescent acculturation and enculturation

Table 3. Logistic multiple regression on the presence of formal services use.

	Estimate	Standard Error	95% Lower CI	95% Lower CI	*p*
Model 1 (Nagelkerke R^2 = .149)					
Depressive symptoms	.025	.036	−.049	.100	.423
Suicidal ideation	.016	.017	−.018	.049	.259
Caregiver enculturation	−.137	.080	−.345	−.030	**.038**
Model 2 (Nagelkerke R^2 = .250)					
Depressive symptoms	−.003	.039	−.090	.068	.948
Suicidal ideation	.020	.019	−.011	.062	.199
Caregiver enculturation	−.144	−.017	−.336	−.040	**.020**
Generation status	1.631	.085	.381	3.052	**.002**

Results based on 1,000 bootstrap samples. P-value in bold indicates statistically significant at a .05 level.

scales and social support. Although later generation adolescents tended to have higher social support, the association between social support seeking and immigrant generation status was not statistically significant ($p = .07$) and had a phi coefficient of .176 indicating a small effect size.

Discussion

The current study described services use and social support history and examined relevant associations with sociocultural variables (e.g., acculturation, enculturation, language preference) among Latinx families who have an adolescent with suicidal behavior in hospital-based psychiatric care. About 20% of the overall sample did not access lower levels of formal services (e.g., outpatient mental health care, primary care support, school staff support) before high acuity hospital care. Further, analyses indicated a disparity in formal services use within Latinx families. Specifically, first-generation status and caregiver enculturation were associated with a lower likelihood of formal services use. Adolescent Spanish language preference was associated with lower social support. Of note, findings also indicate that virtually all Latinx families in the current high-risk sample did not engage with informal mental health support (e.g., at religious institutions, alternative practitioners).

Stepped care in suicide prevention is widely recommended (Jobes et al., 2018) wherein patients access tiers of care that are therapeutic, least-restrictive, and cost-effective. The current data indicate that a large subset of Latinx adolescents in hospital-based care (e.g., inpatient, partial hospitalization) simply did not engage with lower levels of services and support as would be expected of a stepped care model. This pattern of findings is broadly representative of the limits of current health systems, wherein patients may bypass lower levels of care due to systemic barriers and resort only to emergency care when their condition deteriorates (Brenner et al., 2021). Of note, caregiver enculturation and immigrant generation status, two key sociocultural variables, are supported as independent correlates of the presence of formal services use in the current study. This finding highlights the clinical vulnerability of this population with unique sociocultural barriers. Research and policy work should focus on how to foster engagement with a tiered mental health system among such Latinx families who have limited acculturation and/or high enculturation, as well as high marked clinical needs. Costly and restrictive hospital psychiatric care among these families, even irrespective of acculturation and enculturation levels, could be prevented via systemic change that makes services available, accessible, and engaging. A possible avenue is increasing the availability of integrated mental health services in primary care (Wintersteen & Diamond, 2013), and health care policy that is inclusive of youth in families with limited acculturation to mainstream society and/or high enculturation. An important path toward inclusivity in mental health care for youth, and health care more generally, is federal and state policy that fosters engagement with public assistance and use of services (e.g., expansion of Medicaid, funding for outreach campaigns). Policy that broadly inhibits the use of services among Latinx families, including families with mixed documentation status (e.g., the 2019 Public Charge Rule; Georgetown University Health Policy Institute (Whitener & Corcoran, 2021)), could have downstream effects on the need for costly, intensive, and restrictive care in the realm of psychiatric services.

The current findings also highlight windows of opportunity in formal mental health support for Latinx adolescents at high risk (e.g., school-based support). Low engagement with school-based mental health support was reported in the current sample, as only approximately half of the adolescents in this high-risk sample received mental health support from a school provider. This finding supports the need for early identification of adolescents at high risk and their families in order to provide targeted support, and the infrastructure to support targeted services. For instance, Spanish-speaking and less acculturated families may benefit from understanding the structure of support sources at school (e.g., guidance counselor, school psychologist), having access to support in Spanish, and having systems that encourage and destigmatize help-seeking in culturally relevant ways. Active caregiver involvement and family engagement with the school for an adolescent's mental health needs may be limited due to sociocultural and

economic barriers (e.g., time availability). Proactive mental health support in school systems, irrespective of family ability to be involved, may target emerging clinical crises in Latinx adolescents prior to costly, restrictive, and intensive services (e.g., inpatient hospitalization).

Informal sources of mental health and social support for Latinx families, as reported by caregivers, were limited in the current high-risk sample. A large majority of adolescents were reported as not having received support for their mental health problems in the context of their families, within religious institutions, alternative mental health practitioners, and other informal sources. Such low support may be indicative of the difficulties inherent to the adaptation process to a host country which may include severe social and economic pressures in the family. This pattern of findings is concordant with existing structural recommendations to increase social support, religious support, community activities, care in schools (e.g., including trauma informed care), and integrated behavioral health (Alegría et al., 2022) in order to decrease the mental health burden of Latinx families. Robust community support could have downstream effects on the need for high acuity psychiatric care among Latinx families. Of note, peer support was reported through the lens of the caregiver and may be subject to underreporting. Given the normative processes of emotional support seeking from peers in adolescence (Costello et al., 2022), it would be important to parse the nature of the limited peer support in the current sample which was particularly evident among the first generation adolescents (with only 19% reported as receiving peer support). It is possible that caregivers may either not be aware of the extent of peer support that their adolescents receive (especially in the context of an acculturation gap between caregivers and adolescents), or that these adolescents are socially excluded or unable to seek social support, or both.

The association between immigrant generation status and depressive symptoms, but not with suicidal ideation, may be due to several reasons. Given the high-risk sample of adolescents with recent suicidal crises, it is possible that this sample selection reduced the variability of suicidal ideation levels and therefore reduced the ability to find statistically significant differences. Further, underreporting of suicidal ideation may vary by sociocultural context (e.g., levels of stigma). It is possible that reporting of suicidal ideation was inhibited among Latinx adolescents situated in a sociocultural context that is conducive toward non-disclosure and stigmatization of suicide. Last, definitive comparison of clinical measures in subgroups with different sociocultural backgrounds would require evidence of measurement invariance across groups.

The current findings should be considered in light of the study limitations. First, the study employed a cross-sectional design, thus precluding conclusions about temporal associations. Second, primary caregivers were the only reporters of services use and social support seeking in their adolescents, and so it is possible that they were not aware of certain services or social support (e.g., adolescent seeking support at school without caregiver knowledge). Future research could employ multi-source approaches, including data from adolescent report, school staff report, or health records. Third, there is a current focus on a particular high-risk clinical subgroup and families from only some Latin-American nationalities which reduce generalizability to adolescents with other clinical characteristics and Latinx groups. Fourth, the current study did not assess help-seeking attitudes or behavior. Future research could inform the degree to which mental health help-seeking behavior is characteristic of U.S. culture and related to acculturative processes, including with the use of international Latin-American samples and in the context of marked clinical needs (e.g., suicidality). Last, the utilized clinical measures may be subject to a lack of measurement invariance (e.g., between acculturated and non-acculturated groups of adolescents) and so the clinical variable contrasts should be interpreted within this measurement limitation.

Suicidality requiring hospital-based care inherently involves broad impairment in youth, including disrupted family, social, and academic functioning. Robust engagement with lower-level services and various sources of social support are critical to reduce the personal, familial, and societal cost of suicide-related behavior in youth. Policy work conducive to maximizing engagement with

lower acuity mental health services and enhancement of social support structures among populations like Latinx families is warranted, particularly for families who are less acculturated.

Disclosure statement

Institutional review board (IRB) approval was obtained from the Lifespan health system IRB. All caregivers and youths provided informed consent and assent, respectively, prior to completing study measures.

Funding

The research reported in this publication was supported by the National Institute of Mental Health and the National Institute of Minority Health and Health Disparities under Award Numbers K23 MH097772, 1R01MD013907, PI: Duarte-Velez, respectively. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

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