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Original Research

The Role of Parenting Characteristics in the Mental Health Treatment Utilization of Latino Adolescents with Suicidality

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***Abstract*:** Suicide is the third leading cause of death for individuals aged 10 to 24 years old in the United States. Among Latino adolescents, the risk is even more pronounced. Latino youth show higher rates of suicidal ideation and attempted suicide than non-Latino youth. The high rate of suicide in Latino youth is even more concerning given that Latinos greatly underutilize mental health treatment. The goal of this study is to examine the role of maternal parenting quality, maternal involvement, and parental support for autonomy on the likelihood that Latino adolescents with suicidal ideation (SI) will utilize mental health services. Data from Wave 1 of the National Longitudinal Study of Adolescent Health was utilized. Parenting, clinical, access, and executive function variables were examined via logistic regression. Daily mood fluctuations (OR = 6.17, *p<.05*, 95% CI [1.19, 31.98]) and frequent difficulty focusing attention (OR=4.88, *p<.001*, 95% CI [0.55, 5.76]) were associated with an increased likelihood of receiving treatment. None of the parenting variables were significant. Our findings indicate that daily mood fluctuation and difficulties focusing attention are associated with receipt of mental health services in Latino adolescents with SI, above and beyond the role of parenting characteristics. The protective role that parental autonomy support, maternal parenting quality, and maternal involvement/engagement in decision-making play for Non-Latino White adolescents may have less of an impact for Latino adolescents in promoting their mental health service use in contrast to these strong cultural values and norms.

***Keywords*:** suicide; Latinos; adolescents; treatment engagement; prevention; intervention

Suicide is a significant problem among adolescents. It is the third leading cause of death for individuals aged 10 to 24 years old in the United States (CDC, 2017). Epidemiological studies have found that approximately 30% of adolescents in general report seriously thinking about suicide at some point (Evans et al., 2005) and just under 10% report making a suicide attempt. Among Latino adolescents, the risk is even more pronounced. Latino youth show higher rates of suicidal ideation and attempted suicide than non-Latino youth (Cash & Bridge, 2009; Nestor et al, 2016). In 2017, 8.2% of Latino high school students attempted suicide in the prior year compared with 6.1% of whites (CDC, 2017). Further 15% of Latinas report having attempted suicide compared to 8.9% of black female teens and 6.8% of White female teens, and 26% of Latinas adolescents report considering suicide compared to 7.3% of White females (CDC, 2017).

Among Latinos, the risk is even more pronounced for female adolescents. Approximately 21.1% of Latina female high school students compared to 10.7% of Latino male high school students had seriously considered attempting suicide (Kann, 2014). Further, 15.2% of Latina adolescents compared to 10.4% of Latino adolescents endorsed having a plan about how they would attempt suicide (Kann, 2014).

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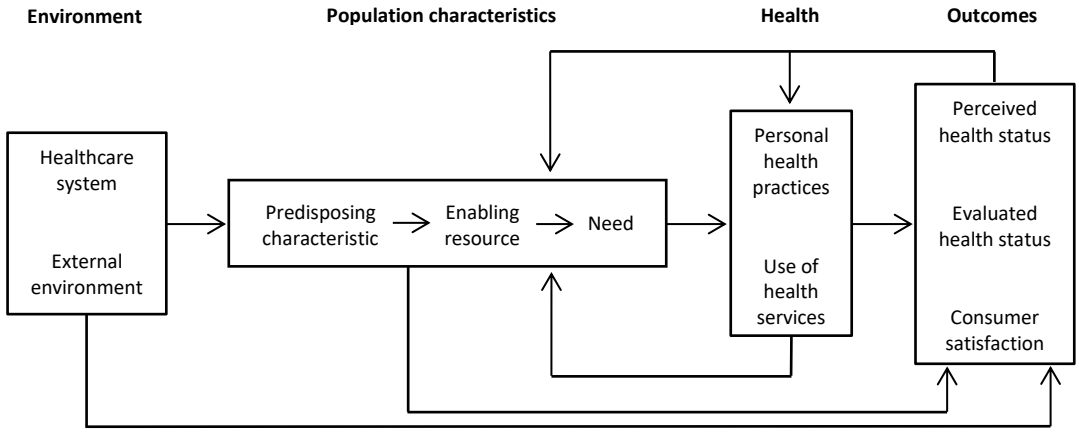
Although Latino youth are at greater risk for suicide ideation and attempts, concerning disparities exist in the delivery of mental health services to this group (Duarte-Velez & Bernal, 2007). Latinos in the US experience significant mental health disparities related to accessing care, the quality of care received, and treatment outcomes (McGuire & Miranda, 2008). Studies further indicate that Latinos report less favorable attitudes about seeking mental health treatment than their non-Latino peers (Alonzo & Conway, 2016; Freedenthal, 2007; Price et al., 2013). Latinos with mental illness are less likely to utilize mental health services, and when they do seek help, they often delay treatment and are more likely to receive inadequate and lower quality care (Alegría et al., 2002; Escarce et al., 2006; Escarce & Kapur, 2006; Ortega et al., 2015). Recent research further suggests that these disparities are increasing despite efforts to address barriers and improve care (Cook, McGuire, & Miranda, 2007; Ortega et al., 2015). For example, research has demonstrated that in general 67.3% of adolescent suicidal ideators and 56.9% of adolescent suicide attempters do not receive specialty mental health treatment in the past 12 months (Husky et al., 2012); however, up to 88% of Latino adolescents in need do not receive necessary mental health services, compared to 76% of White youth (Kataoka et al., 2002; Price et al., 2013).

Previous research has applied the Behavioral Model of Health Services Use (Anderson, 1995: Anderson & Bartkus, 1973) a well-known model that has been used to understand factors associated with service use in numerous populations, to understand the disparities in service use among Latino adolescents. This model suggests that service use is a function of three general factors: 1) predispositional factors (e.g., age, gender, psychological resources such as coping and cognitive abilities, etc.), 2) enabling factors (e.g., income, insurance, sources of care, etc), and; 3) need factors (e.g., perceived health status, mental illness, etc.) (see figure 1). Studies have demonstrated that factors from all three of these domains are significant predictors of service use among individuals, in general (Bradley et al., 2002; Dhingra et al., 2010).

Figure 1. Andersen's Behavioral Model.



Among suicidal Latino adolescents specifically, a recent study identified that daily mood fluctuations within the past 12 months and frequent difficulty focusing attention within the past week (need factors) were associated with an increased likelihood of receiving mental health services (Alonzo & Conway, 2016); however, none of the predispositional or enabling factors examined were found to play a significant role.

This prior research, however, did not control for quality and/or nature of familial relationships, which may a particularly important role given the importance of family in Latino culture. Further, prior studies have found that seeking formal help outside of the family is less acceptable among Latinos than non-Latino Whites (Cabassa et al., 2006; Villatoro et al., 2014). Additionally, Latinos more often report endorsing the belief that personal issues are private, family matters than non-Latino (Cabassa et al., 2006; Cersosimo & Musi, 2011; Villatoro et al., 2014). These findings further emphasize the importance of considering nature and quality of family relationships when examining treatment utilization among Latino youth.

While some research has examined the relationship between family relationships and suicide risk among Latinos, few studies have explored the role of family characteristics in relationship to the treatment utilization Latino suicidal adolescents. Parental support for autonomy, maternal involvement, and maternal quality may be of particular relevance for Latino adolescents.

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Parental support for autonomy refers to the active support and encouragement of a youth's independent problem solving and decision-making (Alonzo & Conway, 2016; Davids et al., 2016; McElhaney et al., 2009). It has been proposed that the concept autonomy has unique implications for Latinos, particularly females given that in Latino culture female socialization is associated with loyalty and commitment to family (Bamaca-Colbert et al., 2012; LaRoche, 2002; Zayas & Pilat, 2008). This type of strong allegiance places family preservation and stability at the focus of what defines being a responsible individual (Bamaca-Colbert et al., 2012; Miranda et al., 2006; Zayas et al., 2008). Latina adolescent then struggles with the conflict between her developmental need for autonomy from her parents and family, and her traditional cultural value to maintain and protect her connection with them. This results in psychological conflict, including confusion and guilt, and familial tension between the adolescent and her parents (Bamaca-Colbert et al., 2012; Miranda et al., 2006; Zayas et al., 2008). Research has demonstrated an association between parental autonomy and greater engagement and adherence to health regimes among non-Latinos (De Haan et al., 2013). Given the unique function of autonomy for Latino youth, it is reasonable to expect there to also be a relationship between parental support for autonomy and treatment utilization in this population, as well.

The acculturation process may also influence the unique role that Latino parents, particularly mothers, may play in the treatment utilization of their children. Research suggests that in Latino families, parents often hold strictly to traditional ways and values, slowing their acculturation process, while their sons and daughters are more rapidly acculturating (Miranda et al., 2006; Zayas & Pilat, 2008). This discrepancy in acculturation, in which the adolescent wants to incorporate and abide by the ways of the new culture, while parents are simultaneously striving to adhere to traditional norms, often creates conflict and tension within between adolescents and their parents (Miranda et al., 2006; Zayas & Pilat, 2008). The parents' inability to effectively guide their children and help them negotiate this conflict between traditional and new values and norms, decreases their ability to serve as reliable, supportive, involved, caring figures and reduces their ability to help their adolescent offspring make adaptive choices (Rhodes et al., 1994; Miranda et al., 2006; Zayas & Pilat, 2008).

Previous research has demonstrated that in non-Latino populations poor parenting is associated with outpatient mental health treatment drop out (Coatsworth et al., 2002; Haine-Schlagel & Walsh, 2015). The role maternal parenting quality and involvement, in particular, may be especially relevant for Latino suicidal adolescents' treatment utilization.

It remains unclear to what extent the role of parenting characteristics plays in the receipt of mental health services of suicidal Latino adolescents. Given the established importance for Latino youth of: 1) having support for independent, non-traditional decision-making; and, 2) the quality and nature of the relationship with mothers, in particular, we sought to examine the impact of parental support for autonomy, maternal parenting quality, and maternal involvement/engagement as enabling factors for the likelihood that Latino adolescents with suicidal ideation will utilize mental health services. We hypothesized that an increased likelihood of receiving mental health services for Latino adolescents with suicidal ideation (SI) will be associated with (1) greater parental autonomy regarding decision making; (2) higher reported maternal parenting; and, (3) greater levels of maternal involvement.

Methods

Sample

The National Longitudinal Study of Adolescent Health (Add Health) is a study of a nationally representative sample of adolescents designed to examine health-related behaviors (Harris et al., 2009) (described in detail in Alonzo et al., 2016). Four waves of data were collected between 1994–1995 resulting in 90,119 adolescents completing an in-school questionnaire. Additional in home data collection was then conducted for 20, 745 adolescents between grades 7 and 12 and their parents. Of these, 3,048 were Latino, 477 of whom having reported suicide ideation over the past year. For the present study, complete data was available on 210 subjects.

Measures

The adolescent interview was collected via Computer-Assisted Self Interview (CASI) in which interviewers posed questions to adolescents and recorded their responses directly onto a computer. For the current study, this information pertained to clinical characteristics such as mental health services receipt and depressive symptoms, along with mood fluctuation, impulsivity and difficulty focusing attention. Sensitive questions such as those pertaining to suicide ideation and suicide attempts, however, were collected from adolescents via an audio-computerized interview format (audio-CASI) in which adolescents listened to prerecorded questions via headphones and privately answered

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questions directly onto the computer (Harris & Cheng, 2007).

In terms of information regarding parents and the larger household, interviewers posed questions to parents. Those that pertained to access, such as family income and health insurance, were used in the present study.

Outcome variable: Receipt of mental health services in the past 12 months. Adolescents responded 1=yes or 0=no to the following question: "In the past year, have you received psychological or emotional counseling?"

Predisposing factors. Gender was based on interviewer report. Interviewers were instructed as follows: "Interviewer, please confirm that respondent's sex is (male) female. (Ask if necessary.)". Adolescents reported their birth date and age was determined by subtracting their date of birth from the date of the interview.

Enabling/disabling factors:

1) Parental support for autonomy. Adolescents responded "yes" or "no" as to whether their parents allowed them to make their own decisions in 7 different situations. Questions included "Do your parents let you make your own decisions about what time you must be home on weekend nights?" Examples included whether their parents allowed them to make their own decisions about bedtime, what they eat and wear, etc. Parent support for autonomy was based on the total number of situations that adolescents were allowed to make their own decisions and total scores were used in the analyses (Cronbach's alpha = .67).

2) Maternal parenting quality. Adolescents were asked to rate 5 items pertaining to the parenting quality of their mothers on a likert scale from "1=strongly agree" to "5=strongly disagree". The items included the extent to which their mother is warm and loving, encourages independence, talks to them and helps them understand why something is wrong, as well as how satisfied they are with their communication with their mother, and with their relationship with their mother. Average scores were used in the analyses. The Cronbach's alpha was .83 and average scores were used in the analyses.

3) Maternal involvement/engagement. Adolescents were presented with a card with a list of 10 activities and asked "Which of the following things have you done with your mother in the past 4 weeks?" Adolescents responded "yes" or "no" to each item. Examples included "gone to a movie, play, museum, concert or sports event", "had a talk about a personal problem you were having", and "talked about your school work or grades". Parent involvement/engagement was based on the total number of activities that adolescents did with their mother and total scores were used in the analyses. The Cronbach's alpha was .58.

4) Total family income. Parents reported the total family income amount based on all sources of income before taxes in 1994. Responses ranged in $1, 000 increments from $0 to $999, 000. The addition of a constant and a log transformation was used to correct skewness.

5) Difficulty obtaining medical care. Parents responded on a 5-point likert scale 1 (very easy) to 5 (very hard) to the following question: "In general, how easy or hard is it for you to get medical care for your family?" The addition of a constant and a log transformation was used to correct skewness.

6) Lack of health insurance in past 12 months. Parents responded either yes=1 or no=0 to the following question: "In the past 12 months, has there been a time when [child's name] had not health insurance?"

7) Physical exam in the past 12 months. Adolescents responded either yes = 1 or no = 0 to the following question: "In the past year, have you had a routine physical examination?"

Needs

1) Perceived poor health. Adolescents responded on a 5-point likert scale 1 (excellent) to 5 (poor) to the following question: "In general, how is your health?".

2) Depressed mood. We assessed depressed mood using Centers of Epidemiologic Studies Depression Scale (CES- D) (Radloff, 2007) and used a 3-item scale (Costello et al., 2008). The CES-D is a widely used self-reported depression scale with excellent psychometric properties. It is valid for use in both junior and senior high school student populations and has been found to be related to suicide ideation in the current sample. Depressive symptoms were measured for the past week. Participants were asked to answer rate their depressive feelings on a likert scale from 0 to 3 (0=rarely or none of the time (less than 1 day), 3 = most of the time (5-7 days)). This 3-item version of the CES-D has been used in previous studies with this dataset and has been shown to have acceptable reliability and validity (Costello et al., 2008) (Cronbach's alpha = .82).

3) Suicide attempt within the past 12 months. Adolescents were asked: "During the past 12 months, how many times did you actually attempt suicide?" Response selections included: 0= 0 times, 1 = 1 time, 2 = 2 or 3 times, 3=4 or 5 times, 4=6 or more times. Due to the low frequency with which adolescents reported more than one suicide attempt within the past 12 months, we recoded this variable to reflect 1=the presence or 0=the absence of a suicide attempt. This recoded dichotomous variable was used in all analyses.

4) Impulsivity. Adolescents rated 4 items on a likert scale ranging from 1 (strongly agree) to 5 (strongly

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disagree) that reflected impulsivity (Chen & Vazsonyi, 2011; Vazsonyi et al., 2006). Examples include "When making decisions, you generally use a systematic method for judging and comparing alternatives". Items were reverse coded so that high scores reflected high impulsivity. Average scores were computed and used in all analyses. Consistent with prior studies (Chen & Vazsonyi, 2011), the scale demonstrated good reliability (Cronbach's alpha = .71).

5*) Moodiness within the past 12 months*. Adolescents rated the frequency with which they experienced moodiness over the past 12 months. Response selections included: 0=never, 1=just a few times, 2=about once a week, 3=almost every day, and 4=every day.

6) Difficulty focusing attention within the past week. Adolescents rated the frequency with which they experienced difficulty focusing attention within the past 7 days. Adolescents selected 0 (never) to 3 (most of the time) to the following statement from the Center for Epidemiologic Studies Depression Scale (CES-D) (44): "I had trouble keeping my mind on what I was doing". We created the following 3 categories reflecting difficulty focusing attention: 0= none, 1=occasional, and 2=frequent. These categories were used in all analyses.

Data analysis

Analyses were conducted using Stata Version 12.0 (StataCorp, 2011). Survey weights were used in the analyses to address selection probabilities (i.e., larger schools had a higher probability of being selected compared to smaller schools), differences in response rates across subgroups, and increase population representativeness (see 40). A logistic regression analysis was conducted to examine whether receipt of mental health services by Latino adolescents with SI was associated with (1) clinical characteristics (perceived poor health, suicide attempt history, depression), (2) access variables (insurance, income, difficulty obtaining medical care, physical exam, and parenting (i.e., maternal parenting quality, maternal involvement, parental support for youth autonomy), and (3) mood fluctuations and executive functions (i.e., impulsivity, difficulty focusing attention).

Results

Frequencies and descriptive statistics are provided in Tables 1 and 2. Overall, the sample was largely female (67%). Twenty-eight percent of the sample received mental health services and 27% reported at least one suicide attempt in the past year.

Table 1. Sociodemographic and clinical characteristics (n=210).

Variable	% (n)
Child gender	
Male	33% (69)
Female	67% (141)
Suicide attempt within past 12 months	
Yes	27% (57)
No	73% (153)
Time without insurance within past 12 months	
Yes	13% (27)
No	87% (183)
Frequency of mood fluctuations in the past 12 months	
Never	6% (13)
Just a few times	35% (73)
About once a week	29% (60)
Almost daily	17% (35)
Daily	13% (29)
Frequency of trouble focusing attention in the past week	
Rarely/None	19% (39)
Some of the time	40% (84)
Moderate/Most of the time	41% (87)

Table 2. Means, standard deviations, and ranges of predisposing, distal enabling/disabling, and proximal enabling/disabling factors (n=210).

Variable	Mean (SD)
Predisposing factors	
Age	15.15 (1.66)
Distal enabling/disabling factors	
Income ($)	32,451.33
Difficulty obtaining medical insurance	1.57 (0.86)
Proximal enabling/disabling factors	
Parenting quality	3.91 (0.87)
Parent engagement/involvement	4.31 (2.00)
Parental support for youth autonomy	5.09 (1.51)
Frequency of mood fluctuations in the past 12 months	6%
Never	39%
Just a few times	29%
About once a week	17%
Almost daily	14%
Daily	
Needs	
Perceived poor health	2.46 (0.90)
Depressive symptoms	3.11 (2.52)
Impulsivity	3.67 (0.58)

Correlation analyses revealed that higher total family income was associated with higher parental support for autonomy, and increased age was associated with less difficulty obtaining health insurance, and higher parental support for youth autonomy, impulsivity, and depressive symptoms (Table 3). Moreover, difficulty obtaining insurance in the past

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12 months was associated with lower maternal involvement and lower depressive symptoms. Finally, with respect to parenting, maternal parenting quality was associated with higher maternal involvement, and lower perceived poor health and depressive symptoms, whereas parental support for autonomy was associated with higher depressive symptoms.

Table 3. Associations between predisposing, distal enabling/disabling, and proximal enabling/disabling factors (n=210).

Variable	1	2	3	4	5	6	7	8	9
Predisposing factors									
1. Age	-								
Distal enabling/disabling factors									
2. Income	-.09	-							
3. Difficulty obtaining medical insurance	-.20**	-.11	-						
Proximal enabling/disabling factors									
4. Parenting quality	-.05	-.04	-.16	-					
5. Parent engagement/involvement	-.11	.04	-.14*	.31***	-				
6. Parental support for youth autonomy	.24***	.14*	-.11	-.03	.01	-			
Needs									
7. Perceived poor health	-.11	.12	.05	-.17*	-.06	.01	-		
8. Depressive symptoms	.15*	-.01	-.22**	-.18**	.04	.23**	.08	-	
9. Impulsivity	.26***	-.12	.00	.24***	.06	-.06	-.13	-.10	-

Note: Pearson correlations are reported. * p < .05, ** p < .01, *** p < .001

Results of the logistic regression revealed that daily mood fluctuations within the past 12 months (OR = 6.17; p<.05; 95% CI [1.19, 31.98]) and frequent difficulty focusing attention within the past week (OR=4.88; p<.001; 95% CI [0.55, 5.76]) were associated with an increased likelihood of receiving mental health services (Table 4). No associations were observed for clinical characteristics or access variables. With respect to parenting, no significant associations were found.

Table 4. Logistic regression analysis predicting to receipt of mental health services (n=210).

	OR (95% CI)
Predisposing Factors	
Gender	0.81 (0.22, 2.96)
Age	0.96 (0.67, 1.37)
Distal Enabling/Disabling Factors	
Income	0.84 (0.57, 1.26)
Physical exam	1.87 (0.63, 5.62)
Difficulty obtaining medical care	1.99 (0.65, 6.13)
Time without insurance within past 12 months	0.31 (0.04, 2.08)
Proximal Enabling/Disabling Factors	
Parenting quality	0.94 (0.49, 1.80)
Parent engagement/involvement	1.09 (0.83, 1.43)
Parent support youth autonomy	1.51 (0.94, 2.44)
Need	
Perceived poor health	1.44 (0.77, 2.69)
Suicide attempt within past 12 months	3.07 (0.60, 10.01)
Depressive symptoms	1.00 (0.79, 1.28)
Mood fluctuations in the past 12 months a	
- About once a week	2.70 (0.84, 8.74)
- Almost daily	3.01 (0.58, 15.62)
- Daily	6.17 * (1.19, 31.98)
Impulsivity	1.78 (0.54, 2.57)
Trouble focusing attention in the past week [b]	
- None	2.08 (0.53, 8.20)
- Frequent/Most of the time (3-7 days)	4.88 ** (0.55, 5.76)

Discussion

This is the first paper to specifically examine the role of parental support for autonomy, maternal parenting quality, and maternal involvement/ engagement as enabling factors for mental health service utilization among a nationally representative sample of Latino adolescents with suicide ideation. Contrary to our hypothesis, our findings indicate that none of the parenting variables were associated with greater treatment utilization. We found that only daily mood fluctuations within the past 12 months and frequent difficulty focusing attention within the past week were associated with an increased likelihood of Latino adolescents with suicidality receiving mental health services. These findings demonstrate the heightened role of mood regulation and attention difficulties in relation to mental health service utilization.

Our findings may be due in part to cultural values pertaining to the role of the family among Latinos. For example, the concept of "respeto" or respecting one's elders, highly prevalent in Latino culture, suggests that if adolescents were to seek formal help

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Note: ** p < .001, * p < .05. OR= Odds Ratio. CI = Confidence Interval. Omitted categories: [a] Mood fluctuations-Just a few times, [b] Trouble focusing attention - Some of the time.

from a mental health professional it could be viewed as disrespecting the family by not relying on elder adults within the family and, rather, disclosing private matters to an outsider (Calzada et al., 2010; DeLuca et al., 2015). It may be that the conflicted relationship stemming from acculturation differences between parents and adolescents serves to decrease help-seeking and treatment utilization as adolescents may be less likely to confide in parents with whom they experience tension and conflict regarding their difficult suicidal thoughts and feelings.

Further, the cultural values of "machismo" for males (being independent, brave, and emotionally restrained), and "marianismo" for females (being deferent and cooperative and not causing trouble) may also influence the decision of Latino adolescents to receive formal mental health treatment depending upon how they perceive their role within the family (Cauce & Domenech-Rodriguez, 2002; DeLuca et al, 2015; Nunez et al., 2016). Additionally, "fatalism" or the belief that one's life is predetermined by fate (thereby placing one's life in external control) may serve to reduce an individual's desire to seek help (Drew & Schoenberg, 2011; Florez et al., 2009; Hovey, 1996).

We found that parental support for autonomy approached significance but was not significantly associated with an increased likelihood of utilizing mental health services. This is consistent with prior research that has found that although parental influence was a significant predictor of seeking mental health services among adolescents and young adults, self-influence was even more salient (Rickwood et al., 2015; Ryan et al., 2015). These findings underscore the importance of considering how developmental changes across adolescence may be associated with developmental changes in the contributions of parenting. For example, Latino suicidal youth who are given increasingly greater autonomy across adolescence in making independent decisions may also be taking a greater role and more responsibility in their health care services and in seeking sources of support. Thus, the findings that maternal parenting quality and involvement were non-significant for Latino suicidal adolescents may also reflect decreasing dependence on parents across development.

It is also possible that these associations may vary based on individual factors. Adolescents may vary in their responsiveness and susceptibility to parenting. For example, a growing body of research has demonstrated that children with negative temperament are particularly responsive to both positive and negative parenting, whereas other children are not (Danzig et al., 2015; Micalizzi et al., 2017; Slagtt et al., 2016). Therefore, it is possible that the role of parenting in relation to Latino suicidal youth and engagement in mental health services may play an important role for some adolescents, but not others. Future research is needed to examine whether adolescents with high mood regulation and attention difficulties are more susceptible to parental autonomy support, involvement, and care, compared to other adolescents. This may have important implications for the development of person-centered mental health interventions for Latino, suicidal adolescence.

Study Limitations and Strengths

This study has methodological limitations that must be noted. First, the study is based on cross-sectional data so statements about causality cannot be made. Second, suicide assessment was based on self-report and adolescents may have under-reported suicidal thoughts and behaviors due to the stigma surrounding suicide. However, over 90% of suicidal adolescents in the current study reported that they answered the survey either "very" or "completely" honestly. Therefore, under-reporting may not be a significant issue. Third, it is possible that suicidal thoughts and/or behavior may not have been the primary reason for receiving mental health services given that the reason for seeking mental health treatment was not assessed. Fourth, the dataset utilized in this study was collected in the mid-1990's and does not reflect the potential impact of current contextual factors (i.e., social media use). However, this study is a follow-up to a previous study identified that daily mood fluctuations within the past 12 months and frequent difficulty focusing attention within the past week as associated with an increased likelihood of receiving mental health services that did not account for the potential impact of parenting characteristics in its analysis. Using the same dataset is most appropriate for examining whether the inclusion of these parenting variables would change the original results. Fifth, analysis did not account for immigration/generational status. It is possible adherence to traditional cultural values and norms may differ according to generational and immigration status. Lastly, the Chronbach's alpha for maternal involvement/engagement and parental support for autonomy could be considered relatively low. This may contribute to our non-significant findings.

That said, this study has many strengths including the utilization of a large, nationally representative sample. We also examine a comprehensive range of clinical characteristics and access variables. Lastly,

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we examine previously unexplored enabling factors, such as parental quality, parental involvement/engagement, and parental support for autonomy.

Conclusion

Latino adolescents are at elevated risk of experiencing suicide ideation and attempts yet, at the same time, they greatly under-utilize mental health services (Alonzo & Conay, 2016; Duarte-Velez & Bernal, 2007). Better understanding of the factors that impact whether or not Latino adolescents with SI seek mental health treatment is essential. Our findings indicate that daily mood fluctuation and difficulties focusing attention are highly associated with receipt of mental health services in Latino adolescents with SI, above and beyond the role of parenting characteristics. Overall, the protective role that parental quality, parental involvement/ engagement, and parental autonomy in decision-making play for Non-White Latino adolescents may have less of an impact for Latino adolescents in supporting and/or promoting their mental health service use in contrast to these strong cultural values and norms. Further research is needed to examine the role of parenting and family connectedness while controlling for cultural values to better understand their relationship to the mental health service utilization of Latino adolescents.

References

Alegria, M., Canino, G., Ríos, R., Vera, M., Calderón, J., Rusch, D., & Ortega, A. N. (2002). Mental health care for Latinos: Inequalities in use of specialty mental health services among Latinos, African Americans, and non-Latino Whites. *Psychiatric Services*, 53(12), 1547-1555.

Alonzo, D., Conway, A., & Modrek, A. S. (2016). Latino suicidal adolescent psychosocial service utilization: the role of mood fluctuations and inattention. *Journal of Affective Disorders*, 190, 616-622.

Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: does it matter?. *Journal of Health and Social Sehavior*, 36(1), 1- 10.

Anderson, J. G., & Bartkus, D. E. (1973). Choice of medical care: a behavioral model of health and illness behavior. *Journal of Health and Social Behavior*, 14(4), 348-362.

Bámaca-Colbert, M. Y., Umaña-Taylor, A. J., & Gayles, J. G. (2012). A developmental-contextual model of depressive symptoms in Mexican-origin female adolescents. *Developmental Psychology*, 48(2), 406.

Belsky, J. (1997). Variation in susceptibility to environmental influence: An evolutionary argument. *Psychological Inquiry*, 8(3), 182-186.

Bradley, E. H., McGraw, S. A., Curry, L., Buckser, A., King, K. L., Kasl, S. V., & Andersen, R. (2002). Expanding the Andersen model: The role of psychosocial factors in long-term care use. *Health Services Research*, 37(5), 1221-1242.

Cabassa, L. J., Zayas, L. H., & Hansen, M. C. (2006). Latino adults' access to mental health care: A review of epidemiological studies. *Administration and Policy in Mental Health and Mental Health Services Research*, 33(3), 316-330.

Cash, S. J., & Bridge, J. A. (2009). Epidemiology of youth suicide and suicidal behavior. *Current Opinion in Pediatrics*, 21(5), 613.

Calzada, E. J., Fernandez, Y., & Cortes, D. E. (2010). Incorporating the cultural value of respeto into a framework of Latino parenting. *Cultural Diversity and Ethnic Minority Psychology*, 16(1), 77.

Cauce, A. M., & Domenech-Rodriguez, M. (2002). Latino families: Myths and realities. Latino children and families in the United States: *Current Research and Future Directions*, 3 25.

Centers for Disease Control and Prevention. (2003). Web-based Injury Statistics Query and Reporting System (WISQARS)[Online]. *National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (producer). Available from: URL: www. cdc. gov/ncipc/wisqars (accessed March 2019).*

Cersosimo, E., & Musi, N. (2011). Improving treatment in Hispanic/Latino patients. *The American Journal of Medicine*, 124(10), S16-S21.

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(2), 113-132.

Cook, B. L., McGuire, T., & Miranda, J. (2007). Measuring trends in mental health care disparities, 2000–2004. *Psychiatric Services*, 58(12), 1533-1540.

Costello, D. M., Swendsen, J., Rose, J. S., & Dierker, L. C. (2008). Risk and protective factors associated with trajectories of depressed mood from adolescence to early adulthood. *Journal of Consulting and Clinical Psychology*, 76(2), 173.

Suicidology Online
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Danzig, A. P., Dyson, M. W., Olino, T. M., Laptook, R. S., & Klein, D. N. (2015). Positive parenting interacts with child temperament and negative parenting to predict children's socially appropriate behavior. *Journal of Social and Clinical Psychology*, 34(5), 411-435.

Davids, E. L., Roman, N. V., & Leach, L. (2016). Decision making styles: A systematic review of their associations with parenting. *Adolescent Research Review*, 1(1), 69-90.

De Haan, A. M., Boon, A. E., de Jong, J. T., Hoeve, M., & Vermeiren, R. R. (2013). A meta-analytic review on treatment dropout in child and adolescent outpatient mental health care. *Clinical Psychology Review*, 33(5), 698-711.

De Luca, S., Schmeelk-Cone, K., & Wyman, P. (2015). Latino and Latina Adolescents' help-seeking behaviors and attitudes regarding suicide compared to peers with recent suicidal ideation. *Suicide and Life-Threatening Behavior*, 45(5), 577-587.

Dhingra, S. S., Zack, M., Strine, T., Pearson, W. S., & Balluz, L. (2010). Determining prevalence and correlates of psychiatric treatment with Andersen's behavioral model of health services use. *Psychiatric Services*, 61(5), 524-528.

Drew, E. M., & Schoenberg, N. E. (2011). Deconstructing fatalism: ethnographic perspectives on women's decision making about cancer prevention and treatment. *Medical Anthropology Quarterly*, 25(2), 164-182.

Duarté-Vélez, Y. M., & Bernal, G. (2007). Suicide behavior among Latino and Latina adolescents: Conceptual and methodological issues. *Death Studies*, 31(5), 435-455.

Escarce, J. J., Morales, L. S., & Rumbaut, R. G. (2006). The health status and health behaviors of Hispanics. *Hispanics and the Future of America*, 362-409.

Escarce, J. J., & Kapur, K. (2006). Access to and quality of health care. *Hispanics and the Future of America*, 410-415.

Evans, E., Hawton, K., Rodham, K., & Deeks, J. (2005). The prevalence of suicidal phenomena in adolescents: a systematic review of population-based studies. *Suicide and Life-Threatening Behavior*, 35(3), 239-250.

Flórez, K. R., Aguirre, A. N., Viladrich, A., Céspedes, A., De La Cruz, A. A., & Abraído-Lanza, A. F. (2009). Fatalism or destiny? A qualitative study and interpretative framework on Dominican women's breast cancer beliefs. *Journal of Immigrant and Minority Health*, 11(4), 291-301.

Freedenthal, S. (2007). Racial disparities in mental health service use by adolescents who thought about or attempted suicide. *Suicide and Life-Threatening Behavior*, 37(1), 22-34.

Haine-Schlagel, R., & Walsh, N. E. (2015). A review of parent participation engagement in child and family mental health treatment. *Clinical child and family psychology review*, 18(2), 133-150.

Harris, K. M., Halpern, C. T., Whitsel, E., Hussey, J., Tabor, J., Entzel, P., & Udry, J. R. (2009). The national longitudinal study of adolescent to adult health: Research design. *See http://www. cpc. unc. edu/projects/addhealth/design (accessed March 2019)*.

Harris, K. M., Halpern, C. T., Whitsel, E., Hussey, J., Tabor, J., Entzel, P., & Udry, J. R. (2009). The national longitudinal study of adolescent to adult health: Research design. *See http://www. cpc. unc. edu/projects/addhealth/design* (accessed March 2019)

Harris, K. M., & Cheng, M. M. (2007). Dating major life events using an CAPI/CASI event history calendar in Add Health. Paper presented at the Conference on the Event History Calendar Method. Washington, D.C.,

Husky, M. M., Olfson, M., He, J. P., Nock, M. K., et al. (2012). Twelve-month suicidal symptoms and use of services among adolescents: results from the National Comorbidity Survey. Psychiatric Services., 63(10), 989-996.

Kataoka, S. H., Zhang, L., & Wells, K. B. (2002). Unmet need for mental health care among US children: Variation by ethnicity and insurance status. *American Journal of Psychiatry*, 159(9), 1548-1555.

La Roche, M. J. (2002). Psychotherapeutic considerations in treating Latinos. *Harvard Review of Psychiatry*, 10(2), 115-122.

McElhaney, K., Allen, J., Stephenson, J., & Hare, A. (2009). Attachment and autonomy during adolescence. In RM Lerner & L. Steinberg (Eds.). (2009). *Handbook of adolescent psychology, volume 1: Individual bases of adolescent development* (Vol. 1). pp. 358 403. John Wiley & Sons. Hoboken. NJ: John Wiley & Sons, Inc.

Monecke, A., & Leisch, F. (2012). sem-PLS: Structural equation modeling using partial least squares. *Journal of Statistical Software*, 48(3), 1-32.

Suicidology Online
open access journal
www.suicidology-online.com
ISSN 2078-5488

McGuire, T. G., & Miranda, J. (2008). New evidence regarding racial and ethnic disparities in mental health: Policy implications. *Health Affairs*, 27(2), 393-403.

Micalizzi, L., Wang, M., & Saudino, K. J. (2017). Difficult temperament and negative parenting in early childhood: A genetically informed cross-lagged analysis. *Developmental Science*, 20(2), e12355.

Nestor, B. A., Cheek, S. M., & Liu, R. T. (2016). Ethnic and racial differences in mental health service utilization for suicidal ideation and behavior in a nationally representative sample of adolescents. *Journal of Affective Disorders*, 202, 197-202.

Nuñez, A., González, P., Talavera, G. A., Sanchez-Johnsen, L., Roesch, S. C., Davis, S. M., ... & Penedo, F. J. (2016). Machismo, marianismo, and negative cognitive-emotional factors: Findings from the Hispanic Community Health Study/Study of Latinos Sociocultural Ancillary Study. *Journal of Latina/o Psychology*, 4(4), 202.

Ortega, A. N., Rodriguez, H. P., & Vargas Bustamante, A. (2015). Policy dilemmas in Latino health care and implementation of the Affordable Care Act. *Annual Review of Public Health*, 36, 525-544.

Price, J. H., Khubchandani, J., McKinney, M., & Braun, R. (2013). Racial/ethnic disparities in chronic diseases of youths and access to health care in the United States. *BioMed Research International*, *2013*, 1-12.

Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1(3), 385-401.

Rickwood, D. J., Mazzer, K. R., & Telford, N. R. (2015). Social influences on seeking help from mental health services, in-person and online, during adolescence and young adulthood. BMC Psychiatry, 15(1), 40.

Ryan, S. M., Jorm, A. F., Toumbourou, J. W., & Lubman, D. I. (2015). Parent and family factors associated with service use by young people with mental health problems: a systematic review. *Early Intervention in Psychiatry*, 9(6), 433-446.

Slagt, M., Dubas, J. S., Deković, M., & van Aken, M. A. (2016). Differences in sensitivity to parenting depending on child temperament: A meta-analysis. *Psychological Bulletin*, 142(10), 1068.

StataCorp, L. P. (2011). *Stata statistical software: release 12.* College Station, TX: StataCorp LP.

Villatoro, A. P., Morales, E. S., & Mays, V. M. (2014). Family culture in mental health help-seeking and utilization in a nationally representative sample of Latinos in the United States: The NLAAS. *American Journal of Orthopsychiatry*, 84(4), 353.

Zayas, L. H., & Pilat, A. M. (2008). Suicidal behavior in Latinas: explanatory cultural factors and implications for intervention. *Suicide and Life-Threatening Behavior*, 38(3), 334 342.