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Impact of Family, Neighborhood, and Schools on Behavioral Health Needs of Justice-Involved Latinx Adolescents

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Abstract

Latinx adolescents are overrepresented in the justice system and have high untreated behavioral health needs. We examined the family as well as promotive and inhibitive environments (i.e., neighborhood and school) and their associations on behavioral health among 181 first-time justice-involved Latinx adolescents. Results showed that more optimal caregiver–adolescent attachment was associated with fewer behavioral health needs; more negative caregiver–adolescent communication with greater behavioral health needs. Increased neighborhood disadvantage and negative school interactions served as inhibitive environments and were associated with greater behavioral health needs. Moderation analyses indicated that negative communication was associated with greater behavioral health needs among dyads with large acculturation differences but not for dyads close in acculturation. Findings underscore the need to assess the family relationships and communication, promotive/inhibitive environments, and acculturation differences when determining how to meet behavioral health needs among justice-involved Latinx adolescents.

Keywords

Latinx; juvenile justice system; ecological system; behavioral health needs

Latinx adolescents are one of the most overrepresented ethnic/racial groups at every intercept of the justice system (i.e., first contact, hearing and detention, jail/court, reentry, community correction, and community support; Heilbrun et al., 2017; Winkelman et al., 2017). In addition, justice-involved Latinx adolescents, when compared to either non-Latinx justice-involved adolescents or non-justice-involved Latinx adolescents, have

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disproportionately unmet behavioral health needs (i.e., psychiatric symptoms, substance use, and sexual risk), including high rates of psychiatric symptoms, illicit drug use and substance use disorders, and sexual risk behaviors (Hoskins et al., 2019; Johnston et al., 2016; Karnik et al., 2010; Teplin et al., 2002; Winkelman et al., 2017). High rates of substance use are particularly concerning given that use commonly co-occurs with psychiatric symptoms and sexual risk behaviors (Abram et al., 2013; Griffin et al., 2012; Tolou-Shams et al., 2020) and has been found to be significantly associated with justice involvement (Grunwald et al., 2010; Kemp et al., 2017; Schubert et al., 2011). Furthermore, contact with the justice system and having a juvenile record has been tied to the perpetuation of unaddressed behavioral health needs and to long-term negative effects such as housing instability and difficulty obtaining employment (Lambie & Randell, 2013).

Since the 1990s, the overall number of detained adolescents has declined, but for Latinx adolescents, the number has increased (Office of Juvenile Justice and Delinquency Prevention, 2019). Given these factors, the juvenile justice setting presents an opportunity to assess and treat unaddressed behavioral health needs for Latinx adolescents who have significantly increased risks. However, there is a lack of research as it pertains to first-time offending youth. Research is needed to elucidate factors specific to minority families such as Latinx families (e.g., acculturation), as well as promotive and inhibitive environments, to inform effective prevention and intervention approaches for justice-involved Latinx adolescents.

Promotive and inhibitive factors refer to the predictors of outcomes (Masten et al., 2009). They are differentiated from protective factors in that protective factors mitigate the relationship when the level of adversity is high (García Coll et al., 1996). When considering promotive and inhibitive environments, it is important to recognize that adolescents who come into contact with the justice system are also embedded in a number of other systems—neighborhood and school— that may promote inhibit behavioral health needs. Socioecological theory identifies contextual influences, or interacting systems, in an adolescent's environment that can be visually depicted as nested layers; interactions between and among these systems can have a bidirectional and/or circular impact (Bronfenbrenner, 1979; Szapocznik & Coatsworth, 1999). Socioecological theory has been recommended as a guide for conducting public health intervention research (Golden & Earp, 2012). This presupposes that the factors of the neighborhood and school, the contexts that adolescents spend the majority of their time in, has a proximal influence on their behaviors and interactors with adolescents to promote and inhibit healthy outcomes such as psychiatric symptoms, substance use, sexual risk behaviors, and justice system contact (El Kazdouh et al., 2018; García Coll et al., 1996).

Given the relationship between contextual influences and the potential impact of promotive/inhibitive environments on adolescents, targeted research may provide valuable insights into how to further improve evidence-based practices and behavioral health outcomes for justice-involved Latinx adolescents. We studied the associations between family factors [i.e., caregiver–adolescent attachment, and negative communication, neighborhood factors (i.e., caregivers' and adolescents' perceptions of neighborhood disadvantages), and school factors (i.e., caregivers' perceptions of schools, frequency and quality of contact with school

teachers, adolescents' perceived school climate)]. In addition, utilizing the socioecological model allows researchers to study macrosystemic variables, such as cultural phenomena and the mismatch between a family's culture of origin and the host culture. Latinx adolescents face the unique challenge of adapting to U.S. culture at differing rates from their caregivers —a concept better known as "acculturation gap-distress model" (Kim & Park, 2011). The acculturation gap-distress model has received attention in the literature and has been defined as differing levels of acculturation to U.S. culture between caregivers and adolescents. For example, an adolescent acculturating faster to the U.S. culture in comparison to their caregiver. Differing levels of acculturation between the caregiver and youth along with communication conflicts, increase the risk for negative behavioral health outcomes compared to adolescents who are close in acculturation to their caregivers (Kim & Park, 2011; Marsiglia et al., 2009). However, to our knowledge the acculturation gap-distress model has not been studied with a justice-involved Latinx sample nor youth at first contact with the justice system. We addressed this gap in the literature by examining a sample of justice-involved Latinx adolescents, those with first-ever justice contact, and applying the socioecological framework to understand the association between family, school, and neighborhood, and behavioral health needs. We also examined how acculturation differences between the caregiver and adolescent, moderate the association between family factors (i.e., communication) and adolescent behavioral health needs.

Acculturation-Gap Distress Theory

Although family-level factors like caregiver communication have been shown to predict adolescent behavioral outcomes, current acculturation models propose that acculturation differences between caregivers and adolescents might moderate this relationship. The acculturation gap-distress model holds that when Latinx adolescents and their caregivers acculturate to the host culture at different rates, and there is negative communication present in the dyad, this potentially leads to increased behavioral health needs (Coatsworth et al., 2002; Kim & Park, 2011). The acculturation gap-distress model specifically examines the interactive effects of discrete family conflict behaviors (i.e., negative communication) and parent-youth acculturation differences to predict youth outcomes (Telzer, 2010). This model does not expand to include parent attachment because attachment is thought to be a construct that is impacted by a more complex relationship that consists of multiple parenting behaviors (i.e., level of support, behavioral control strategies; Koehn & Kerns, 2018). Very little research related to Latinx adolescents and their caregivers identifies interventions that consider acculturation differences (De La Rosa et al., 2000; Kim & Park, 2011; Pasch et al., 2006). One critique of previous research is a tendency to focus solely on adolescent acculturation (Galvan & Gudiño, 2019), ignoring the influences of caregiver–adolescent acculturation differences. Research has shown that it is critical to address acculturation differences, as these differences have been shown to place Latinx adolescents at greater risk for subsequent behavioral health issues (Cox et al., 2013). Therefore, we examined the role of the acculturation-distress gap (i.e., differences in acculturation to the host culture between caregiver and adolescent), parent–child communication, and Latinx youth behavioral health needs to further understand areas for intervention specific to Latinx youth and families.

Family-Level Factors

Family systems in relation to adolescent well-being and health outcomes are well studied (Bush et al., 2013; Laursen & Collins, 2009). Findings in several meta-analyses have shown that adolescents' poor quality of attachment to their caregivers is associated with aggression and delinquency (Fearon et al., 2010; Hoeve et al., 2012). Among Latinx samples, caregiver–adolescent quality of attachment seems to have a stronger impact on adolescent outcomes when compared to White counterparts (Escovar & Lazarus, 1982; Wright & Cullen, 2001), suggesting that quality of attachment in Latinx families could have a strong influence on Latinx adolescents' behavioral health needs, particularly in families facing additional stressors such as being socially disadvantaged and enduring systemic racism. Researchers have assessed different aspects of family interactions and their impact on behavioral outcomes. For example, with community and justice-involved adolescents, stronger familial relationship quality was associated with a decrease in delinquency and substance use (Caldwell et al., 2006; Pastorelli et al., 2016). Yet, how family-level factors such as quality of attachment and communication are associated with behavioral health outcomes among Latinx adolescents in first-time contact with the justice system is limited.

Neighborhood-Level Factors

Neighborhood-level factors have been shown to impact behavioral health needs, yet are an overlooked area of research for justice-involved Latinx adolescents, and more research is needed (Kubrin & Stewart, 2006). Researchers have conceptualized that economically fragile and residentially unstable neighborhoods discourage forming positive community relationships and may increase adolescent delinquent behaviors (Sampson & Groves, 1989). Research has also shown that Latinx adolescents living in disadvantaged neighborhoods experienced more depressive symptoms compared to African American adolescents and, in the face of ineffective parenting, exhibited higher rates of delinquent behaviors (Roche et al., 2007) and substance-related offenses (Grunwaldet al., 2010). Research on the neighborhood's impact on a broader array of behavioral health concerns among Latinx adolescents while accounting for *caregiver's perspectives of the neighborhood* has been limited (Roche et al., 2007). Caregivers' perspectives of neighborhood environment are important to consider, especially when dyads often perceive neighborhood violence differently (Esteban-Cornejo et al., 2016).

Neighborhood-level factors have been examined, like community violence and poverty, and have been strongly linked to adolescent delinquency (Chen et al., 2016; Coley et al., 2018). Previous research has identified perceived *neighborhood cohesion* as a promotive factor that can inhibit mitigate the risk of future behavioral outcomes in adolescents from disadvantaged neighborhoods (Dawson et al., 2019). Our study further contributes to this literature by assessing neighborhood-related factors that have received little attention to date with justice-involved youth, such as the adolescents' and caregivers' perspectives of the neighborhood, neighborhood cohesion, and their relationship to unmet behavioral health needs, to fully inform prevention and intervention efforts (Rudolph et al., 2014).

School-Level Factors

Research has shown the importance of school-level factors in affecting adolescent well-being. For example, a meta-analysis of countries worldwide showed that school-level factors, such as compulsory school laws (e.g., educational attainment), are related to a decrease in substance use and are health indicators of well-being (Hamad et al., 2018). Among a national sample of African Americans, Afro-Caribbeans, Asians, Latinxs, and non-Latinx Whites, school-level factors have also been related to psychiatric problems (e.g., internalizing, externalizing, and traumatic stress symptoms), leading to school disengagement and dropout (Bowers & Sprott, 2012; Porche et al., 2011). In addition, negative peer interactions at school have been shown to increase risk of behavioral health needs among at-risk students, including those who are justice involved (Mahoney, 2014; Pyrooz, 2014). For example, among students from socially disadvantaged backgrounds, negative peer interactions at school such as bullying or associating with aggressive or rule-breaking peers place these adolescents at even greater risk for psychiatric symptoms, substance use, and future justice involvement (Kasen et al., 1998; Morgan-D'Atrio et al., 1996). At the school level, various factors can promote better adolescent health outcomes. For example, among Latinx families living in dangerous and collectivistic neighborhoods, maternal involvement in their children's schools was associated with a decrease in delinquency and depressive symptoms (Roche et al., 2007); yet little research has focused broadly on the relationship between caregivers' experiences of their adolescents' schools and their adolescents' behavioral health needs. In this study, we incorporated both adolescent and caregiver perspectives of the school environment and examined their association with justice-involved Latinx adolescents' behavioral health needs.

Study Aims

We examined data from a sample of first-time offending, court-involved nonincarcerated (FTOCINI) Latinx adolescents. Specifically, westudied the associations between family factors, that is, caregiver–adolescent attachment, negative communication, and acculturation gap (see Figure 1 for acculturation gap analysis), neighborhood factors (i.e., caregivers' and adolescents' perceptions of neighborhood disadvantages), and school factors (i.e., caregivers' perceptions of schools, frequency and quality of contact with school teachers, adolescents' perceived school climate; see Figure 2)—and FTO-CINI Latinx adolescents' psychiatric symptoms, substance use, and sexual activity (collectively referred to as behavioral health needs). We hypothesized that (a) more positive caregiver–adolescent quality of attachment would be associated with fewer adolescent behavioral health needs, (b) negative parent–child communication would be associated with greater adolescent behavioral needs and that large acculturation gaps between caregivers and adolescents will moderate this association such that dyads with larger acculturation gaps will be associated with greater behavioral health needs, and (c) poorer caregiver perceptions of and interactions with the adolescent's school, poorer adolescent-perceived school climate, and greater adolescent and caregiver-perceived neighbourhood disadvantage would be associated with greater adolescent behavioral health needs.

Method

Participants

From June 2014to April 2016,a sample of 423 FTO-CINI caregiver–adolescent dyads was enrolled in Project EPICC (Epidemiological Project Involving Children in the Court), of which 400 were followed for 24 months and assessed over seven timepoints. We used baseline data from the subset of Latinx adolescents and caregivers enrolled (n = 181); see Hoskins et al., 2019, for more subsample details. All FTO-CINI adolescents were between the ages of 12–18 years. They were adolescents who had their first-ever status or delinquent petition from a family court in a northeastern region of the United States and were invited to participate within the first 30 days of their first-time court involvement. *Status offenders* were defined as individuals who had committed an offense that would not be considered illegal if an adult committed the same offense (e.g., truancy from school, alcohol use, curfew). *Delinquent offenders* were defined as adolescents whose offense would be considered illegal regardless of age (e.g., breaking and entering, assault). Exclusion criteria for Project EPICC included if adolescents were repeat offenders at time of study enrollment, adolescents who were between 12 and 18 years of age at time of study enrollment, or adolescents or caregivers who had cognitive impairments that precluded their ability to complete study consent or assessment measures.

Sampling and Recruitment

All caregivers of FTO-CINI adolescents received a flyer notifying them of the study following the adolescents' initial court appointments. Eligible adolescents and caregivers were then approached in court; families who were interested in participating were screened for eligibility, and both assent and consent were obtained. All recruitment and study procedures were approved by the principal investigator's (senior author) university and collaborating sites' institutional review boards and Offices for Human Research Protections. FTO-CINI females with delinquent offenses were oversampled to have sufficient power to conduct baseline male–female comparisons.

Assessment Procedures

Audio-assisted computerized assessments (ACASI) were used with adolescents and caregivers. All measures were available in English and Spanish, depending on the participant's language preference. Romer et al. (1997) reported that ACASI-based assessments have been shown to increase reliability, are easy to administer, and are both cost and time effective.

Measures

Individual Demographics—Caregivers provided demographic information about themselves and that of their adolescent involved in the study; adolescents provided demographic information about themselves. Demographics included information such as age, gender, national origin, place of birth, and education level. Both caregivers and adolescents provided information about the adolescent's history of school expulsion and whether or not there was an active Individualized Education Program.

Primary Outcomes

The Behavior Assessment System for Children, 2nd Edition (Adolescent Outcome and Caregiver Report).: The Behavior Assessment System for Children, 2nd edition (BASC-2) is designed to assess children and young adults ages2–25 years (Reynolds & Kamphaus, 2004). It comprises 16 primary scales, seven optional scales, and five composite scales, two of which (Internalizing Problems and Externalizing Problems) were used for this study. The Internalizing Problems composite scale combines depression, somatization, and anxiety symptoms reported by the children and young adults; the Externalizing Symptoms composite scale combines hyperactivity, aggression, conduct problems, and disruptive behaviors reported by the caregivers. The structural validity of the Self-Report of Personality (SRP) composite scales was supported by factor analyses showing strong factor loadings of scales to composites (Reynolds & Kamphaus, 2004). The SRP and the Parent Rating Scales (PRS) yielded αs of 0.98 and 0.93, respectively. The PRS uses a 4-point response format (N for Never, S for Sometimes, O for Often, or A for Almost Always). The SRP uses a 2-point response format (T for True, F for False) and a 4-point response format (N for Never, S for Sometimes, O for Often, or A for Almost Always). A *T*-score delegates the distance of a raw score from the norm group mean. The range of scores is from 20 to120; below 30 is very low, 31–40 is low, 41–59 is average, 60–69 is at risk, and 70 and above is clinically significant. The BASC-2 adolescent report and parent report each provide validity scales, reported as 1 = *acceptable*, 2 = *low caution*, and 3 = *extreme caution*. At the bivariate level, we ran models both including and excluding participants in the extreme caution range. At the multivariate level, we ran models without controlling for and then controlling for participants in the extreme caution range. The control was conducted by flagging participants who scored in the extreme caution range through creating an “extreme caution” dummy variable. None of the results changed as a result of the sensitivity analyses.

The National Stressful Events Survey PTSD Short Scale (Adolescent Outcome).: The National Stressful Events Survey PTSD Short Scale (NSESSS; LeBeau et al., 2014) is a nine-item scale for adolescents that assesses for severity of posttraumatic stress within the past 7 days (e.g., being “super alert,” on guard, or constantly on the look out for danger).The NSESSS scores each item on a 5-point scale (0 = *not at all*, 1 = *a little bit*, 2 = *moderately*, 3 = *quite a bit*, 4 = *extremely*); higher scores indicate greater severity. The initial NSESSS instructions ask: “People sometimes have problems after extremely stressful events or experiences. How much have you been bothered during the past 7 days by each of the following problems that occurred or became worse after an extremely stressful event/ experience?” We then added an additional response item to each of the nine questions: “I have never experienced a stressful event.” If participants answered “I have never experienced a stressful event” to any of the nine symptom questions, they were considered to have never experienced any trauma in their lifetime and did not complete the measure. LeBeau et al. (2014) found α= 0.90 for the overall scale. Our study yielded an α of 0.94.

The AIDS Risk Behavior Assessment (Substance Use and Sexual Activity, Adolescent Outcome).: The AIDS risk behavior assessment (ARBA; Donenberg et al., 2001) is designed to assess adolescents’ self-reported sexual activity, alcohol use, and cannabis use behaviors. Automated skip patterns were incorporated into the ACASI so that adolescents

who denied engaging in a behavior were not asked to provide further details about that particular activity. Adolescents were asked about lifetime frequency of oral, anal, or vaginal sex. The ARBA also assessed frequency of adolescents' alcohol and cannabis use. Participants reported whether they had ever used alcohol or cannabis (lifetime).

Family

Inventory of Parent and Peer Attachment (Adolescent Outcome).: The Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987) is a measure of adolescents' perceptions of quality of attachment with their primary caregiver. The attachment subscale consists of 25 questions and consists of three subscales: (a) parental trust, (b) communication, and (c) alienation. An example of a question on the IPPA is "My primary caregiver respects my feelings." Responses are Likert scaled, with 1 = *almost never or never true* and 5 = *almost always or always true*. The three subscale scares are combined to create a total score. Negatively worded items are reverse scored; the response values in each section are then summed. The IPPA has adequate reliability (e.g., α has been reported at .87 and .89) and test–retest reliability has been high as well (e.g., .93; Armsden & Greenberg, 1987).The IPPA yielded an α of .92 for this study.

Parent–Adolescent Communication Scale (Caregiver and Adolescent Outcomes).: The Parent–Adolescent Communication Scale (PAC; Barnes & Olson, 1985) is a measure of primary caregiver–adolescent communication. Caregivers and adolescents endorse the measures separately. We used the Negative Aspects of Communication (NC) subscale, which assesses the extent of problems in communication. The caregiver and adolescent forms of the scale are the same except for the referent of each question. An example from the adolescent subscale is, "I can discuss my beliefs with my parent without feeling restrained or embarrassed." The scale comprises 12 statements, which are rated on a 5-point scale (1 = *never* to5 = *always*).Scores are summed; a higher score on the subscale indicates more negative communication. α reliability has been shown to be 0.81 and 0.82 (Liu et al., 2019). The PAC yielded αs of 0.85 and 0.80 for adolescent and caregivers, respectively.

Acculturation Scale-Short Version (Caregiver and Adolescent Outcomes).: The Acculturation Scale-Short Version (ACC) is a 7-item measure that assesses acculturation level (Turner et al., 2006). Acculturation has been operationalized in a variety of ways, with language preference alone accounting for as much as 65% of the variance in individual acculturation status (Rogler et al., 1991). The 5-point scale (1 = *Spanish only* to 5 = *English only*) is summed and divided by 7 and provides a range from 1 to 5. Higher scores indicate greater acculturation. Caregivers and adolescents each completed the ACC. Aprevious study of Latinx participants, ages 19–21 years, showed good reliability at 0.82 (Turner et al., 2006). The ACC yielded αs of 0.87 and 0.94 for adolescent and caregivers, respectively, in our study. The absolute value of the difference between adolescent and caregiver acculturation scores was used to create a dichotomous acculturation gap variable. Caregiver–adolescent dyads with scores between 0 to 1 were categorized in the close acculturation group and those with scores between 1 and 3 in the distant acculturation group (see Telzer, 2010, for similar operationalization). We used the median of 1 to create the close and distant acculturation groups, (i.e., close = 0 to less than 1; distant = 1–3; Telzer, 2010).

Neighborhood

Neighborhood Environment Scale (Caregiver and Adolescent Outcomes).: The Neighborhood Environment Scale (NES; Crum et al., 1996) is a measure of the neighborhood environment, assessing both cohesion and disadvantage. An example item is "I often see people drunk or high on the street in my neighborhood." Caregivers and adolescents completed this measure. The scale consists of 12 items. Six items are negatively worded true/false questions (0 = *false*, 1 = *true*), the six positively worded times are rated on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). Scores are summed, and higher scores indicate greater disadvantage/cohesion. The neighbourhood disadvantage scale ranges from 0 to 6; the neighborhood cohesion scale ranges from 6 to 30. A previous study showed an internal reliability statistic of 0.85 (Crum et al., 1996). The NES yielded αs of 0.81 and 0.82 for adolescent and caregivers, respectively.

School

Perceived School Climate Questionnaire (Adolescent Outcome).: The Perceived School Climate Questionnaire (PSCQ) is a measure of positive and negative peer interactions at school, completed only by adolescents (Brand et al., 2003). An example item is "There are kids in this school who pick on other kids." Each subscale consists of five items on a 5-point scale (1 = *never*, 5 = *always*); the scores are summed and divided by the number of items on the scale. Higher scores indicate more positive or negative interactions. Previous studies have shown adequate internal consistency for both the positive peer interactions (.70) and negative peer interactions (.73) subscales (Brand et al., 2003). The PSCQ yielded an α of 0.92.

Parent-Teacher Involvement Questionnaire: Parent Version (Caregiver Outcome).: The Parent-Teacher Involvement Questionnaire: Parent version (PTIQ; Kohl et al., 2000) Parent version is a measure of the caregiver's relationship with the adolescent's school and school personnel. The PTIQ comprises four subscales; three were used in the present study: three subscales: (a) Quality of the Relationship Between Parent and Teacher, (b) Frequency of Parent–Teacher Contact, and (c) Parent's Endorsement of Child's School. There are 15 total items; an example item is "Your child's school is a good place for your child to be." Each item is rated on a 5-point Likert scale, where 0 represents no involvement and 4 represents high involvement. The mean from each subscale is calculated for the score. Prior studies have shown adequate internal consistency: Quality of the Relationship Between Parent and Teacher, α= .89; Frequency of Parent–Teacher Contact, α= .71; Parent's Endorsement of Child's School, α= .92 (Kohl et al., 2000). Our study yielded the following internal consistency: Quality of the Relationship Between Parent and Teacher, α= 0.91; Frequency of Parent–Teacher Contact, α= 0.80; and Parent's Endorsement of Child's school, α= 0.94.

Data Analysis Plan

Demographic characteristics for the Latinx sample were summarized using means and standard deviations for continuous measures and frequency counts or percentages for categorical variables (see Table 1). We used chi square and *t* tests in bivariate analyses to examine the association between adolescent behavioral health needs (psychiatric symptoms,

substance use, and sexual activity), the family, school, and neighborhood, and acculturation differences by gender and offense type (see Table 2); linear and logistic regression were used to examine differences by age (see Table 3). The aim was to identify factors promoting or inhibiting risk by improving our understanding of the dynamics between family, neighborhood, and school, and adolescent behavioral health needs. To assess the associations at baseline between the family, neighborhood, and school, and adolescent behavioral health needs, age-adjusted relationships using linear and logistic regression as appropriate were used. Caregivers and adolescents completed analogous versions of the PAC NC and NES Disadvantage measures. Multiinformant measures allow researchers to capture both adolescent and caregiver perceptions, which often differ but can provide valuable insights (Collishaw et al., 2009).

Age-adjusted linear and logistic regression models were used to examine the moderation effects of acculturation gap found in previous studies (Coatsworth et al., 2002; Kim & Park, 2011; see Figures 3 and 4). Models included covariates, main effects, and a two-way interaction term for negative communication and caregiver–adolescent acculturation gap. There were a large number of missing values for the parent acculturation scale (27%). After assessing for demographic differences among the caregivers who did not complete the scale, we found that more caregivers born in the mainland United States (66%) did not complete the scale compared to caregivers born outside the United States (34%), a difference that was statistically significant, $\chi^2(181) = 10.08$, $p = .001$. Because of these differences, we used multiple imputations using the same covariates across 10 iterations (see Manly & Wells, 2015). An α of 0.05 was used to determine significance. All analyses were conducted in STATA 15.1.

Results

Participant Demographics

Of the 423 adolescents enrolled in Project EPICC, 46% had a first-time status offense and 54% had a first-time delinquent offense. The study sample consisted of 181 (42.8% of the overall sample) Latinx adolescents and their caregivers. Thirty-eight percent were status offenders and 62% were delinquent offenders. Of the 181 caregivers, 86% were female and 14% were male, average age 39.78 ($SD = 6.7$) years. Ninety-six percent were the biological birth parents, 3% were adoptive parents, 1% were stepparents and/or grandparents. The majority (54%) of caregivers were foreign born. The adolescents' mean age was 14.61 years ($SD = 1.5$), and 55% were male. The majority (92%) of the participants were born in the contiguous United States. Fifty-five percent were male, 52% self-identified as Puerto Rican, and 31% self-identified as Dominican. Statistically significant differences were found between adolescents by offense type, $\chi^2(1, 181) = 4.75$, $p = .03$, with a larger proportion of adolescents with delinquent offenses (29%) reporting school expulsions compared to adolescents with status offenses (14%). See Table 1 for full demographic characteristics and comparisons by gender and offense type.

Family, Neighborhood, and School, and Bivariate Differences

We examined the univariate and bivariate differences of family, neighborhood, and school-level factors by age, gender, and offense type. The caregivers and adolescents endorsed the PAC NC, a measure of negative aspects of communication. The caregivers reported a mean score on the PAC NC subscale of 38.47 (SD = 7.61). For the adolescents, the mean score was 40.59 (SD = 8.80). Only the adolescents endorsed the IPPA, a measure of adolescents' perceptions of quality of attachment with their primary caregiver, which had a mean score of 89.22 (SD = 17.08). No other family-level differences were found by adolescent age, gender, or offense type (see Table 2).

For the neighborhood-level factors, mean scores on caregiver-reported neighbourhood subscales were 1.62 (SD = 2.17) for Neighborhood Disadvantage and 21.22 (SD = 6.51) for Neighborhood Cohesion. Mean scores for Latinx adolescents were 1.41 (SD = 1.93) on the Neighborhood Disadvantage subscale and 22.62 (SD = 6.16) on the Neighborhood Cohesion subscale. Statistically significant gender differences, $t(162) = -2.29$, $p = .02$, were found in the adolescent-reported neighborhood cohesion, with Latinx females reporting higher neighborhood cohesion (M = 23.82, SD = 6.15) compared to males (M = 21.62, SD = 6.02). No differences were found through caregiver nor adolescent-report by adolescent age, gender, or offense type.

The school-level factors were as follows. On the PTIQ, a measure of the caregiver's relationship with the adolescent's school and school personnel, the mean frequency for caregiver-reported contact with teacher (Frequency of Parent–Teacher Contact scale) was 2.20 (SD = 0.78). The mean score for the Quality of the Relationship Between the Parent and Teacher scale was 3.51 (SD = 1.29). There were statistically significant differences in caregiver-reported relationship quality scores, $t(174) = -2.65$, $p = .009$, by adolescent offense type. Caregivers of adolescents with delinquent offenses reported higher quality relationships with teachers (M = 3.65, SD = 0.86) than those of adolescents with status offenses (M = 3.27, SD = 1.03). The mean score on the caregiver-reported Parent's Endorsement of the Adolescent's School scale was 3.85 (SD = 0.91). On the PSCQ, a measure of positive and negative peer interactions at school, the mean score for adolescents was 2.37 (SD = 1.83) on the Negative Interactions subscale and 2.57 (SD = 2.4) on the Positive Interactions subscale. No differences were found by age, gender, and offense type.

Associations Between Family, Neighborhood, and School and Behavioral Health Needs

To address our first question, we used regression models. We examined the associations between factors in adolescent's close proximity (e.g., family, neighborhood, and school) and adolescent behavioral health needs. All models controlled for age (see Table 3).

Family

In the age-adjusted model, for every 1-unit increase in quality of attachment, there was an associated 0.17-point decrease in externalizing symptoms (95% CI [−0.30, −0.03], $p = .02$) and a 0.33-point decrease in internalizing symptoms (95% CI [−0.46, −0.20], $p < .001$). Similarly, for every 1-unit increase in attachment, there was a decrease in the odds of lifetime alcohol use (AOR = 0.96, 95% CI [0.94, 0.99], $p < .001$) and a decrease in the odds

of lifetime cannabis use (A*OR* = 0.97, 95% CI [0.94, 0.99], $p = .003$). No other associations were statistically significant.

Age-adjusted linear regression models showed statistically significant main effects for both caregiver-and adolescent-reported negative parent–child communication. For caregivers, a 1-unit increase in negative communication was associated with a 0.52-point increase in externalizing symptoms (95% CI [0.24, 0.80], $p < .001$). For adolescents, a 1-unit increase in negative communication was associated with a 0.03-point increase in PTSD symptoms (95% CI [0.01, 0.05], $p = .01$). Conversely, a 1-unit increase for adolescents in negative communication was associated with a decrease in the odds of lifetime sexual activity (A*OR* = 0.95, 95% CI [0.91, 0.99], $p = .03$). No other associations were statistically significant.

Neighborhood

Age-adjusted regression models showed statistically significant associations between caregiver-reported neighborhood disadvantage and adolescent sexual activity, such that a 1-unit increase in the Neighborhood Disadvantage scale was associated with a decreased odds of lifetime sexual activity (AOR = 0.81, 95% CI = 0.66, 0.98, $p = 0.03$). For adolescent-reported neighborhood disadvantage, a 1-unit increase in neighborhood disadvantage was associated with a 1.63-point increase in reported internalizing symptoms (95% CI [0.42, 2.84], $p < .01$) and 0.14 increase in PTSD symptoms (95% CI [0.04, 0.23], $p < .01$). No other associations were statistically significant.

School

For the caregivers, a 1-unit increase in the frequency of parent–teacher contact was associated with 4.48-point increase in externalizing symptoms, (95% CI [1.63, 7.33], $p <$ .01). Similarly, a 1-unit increase in parent–teacher contact was associated with an increased odds of lifetime sexual activity (A*OR* = 2.03, 95% CI [1.34, 3.09], $p = .001$). Additionally, a 1-unit increase in positive school endorsement by caregiver was associated with a 3.67-point decrease externalizing symptoms (95% CI [−6.16, −1.19], $p < .01$) and an increased odds of lifetime sexual activity (A*OR* = 1.79, 95% CI [1.16, 2.76], $p = .01$).For the adolescents, a 1-unit increase in negative interactions at school was associated with a 3.05-point increase in internalizing symptoms (95% CI [1.19, 4.91], $p < .01$). No other associations were statistically significant.

Acculturation Gap-Distress

To address our second research question, we examined if the magnitude of the caregiver–adolescent acculturation gap moderated the relationship between negative parent–child communication and adolescent behavioral health needs. From a total of 181 dyads, about 50.1% were categorized as close in perceived acculturation and 49.9% as distant in perceived acculturation. A greater proportion of females (55.07%) were close to their primary caregiver in acculturation compared to males (47.14%), $\chi^2(1), = 3.93$, $p = .05$. Previously run regression models were tested again with the addition of acculturation gap and a two-way interaction term between acculturation gap and negative communication. As before, all models controlled for age as no other demographic variables showed statistically significant differences at the bivariate level. Separate models were tested examining

association with externalizing symptoms, internalizing symptoms, PTSD, lifetime sexual activity, alcohol use, and cannabis use.

Caregiver–Adolescent Acculturation Gap Interactions

The effect of negative communication on adolescent lifetime alcohol use differed by magnitude of caregiver–adolescent acculturation gap between the close acculturation groups versus the distant acculturation group (interaction = 1.09, $p < .001$). For Latinx adolescent and caregiver dyads distant in acculturation, more negative communication was associated with higher odds of adolescent lifetime alcohol use ($OR = 1.07$, $p < .001$; see Figure 3). Similarly, the effect of negative communication on lifetime cannabis use differed by magnitude of caregiver–adolescent acculturation gap between the close acculturation groups versus the distant acculturation group (interaction = 1.06, $p < .02$; see Figure 4). We found no statistically significant interactions for externalizing symptoms, internalizing symptoms, PTSD, and lifetime sexual activity ($p > .05$).

Discussion

Our aims were to understand the associations between FTO-CINI Latinx adolescents' factors related to their family, school, and neighborhood, and their behavioral health needs, identifying both promotive and inhibitive. We also examined the role of the caregiver–adolescent acculturation gap in moderating the association between negative communication and behavioral health needs. Our findings suggest that optimal quality of caregiver–adolescent attachment may protect against adolescent alcohol and cannabis use and greater internalizing and externalizing behaviors. Adolescents' negative perceptions of their neighborhoods were strongly tied to increased internalizing symptoms and traumatic distress. Similarly, adolescents who reported more negative interactions with peers had more internalizing (anxiety, depression) symptoms. Related to our second study aim, for Latinx justice-involved youth, a larger acculturation gap between adolescents and caregivers appeared to interact with negative parent–child communication such that for dyads with larger acculturation discrepancies, there were a greater proportion of adolescents who reported more lifetime alcohol and cannabis use. We briefly review the findings and support for these findings from prior literature and discuss research and clinical implications.

Family

As expected, more optimal caregiver–adolescent quality of attachment was associated with fewer adolescent internalizing and externalizing symptoms and lesser likelihood of lifetime substance use. These findings align with prior research showing that poor parental attachment is associated with increased adolescent health risk behaviors (van der Vorst et al., 2006). Strong parental attachment has also been found to be associated with improvement in psychiatric symptoms (Buist et al., 2004). Therefore, for Latinx adolescents, to prevent and intervene behavioral health needs, the results suggest a focus on the quality of the relationship between the caregiver and adolescent can decrease the risk for negative health coutcomes.

We also found that greater adolescent-reported negative communication was associated with less likelihood of lifetime sexual intercourse. Using observational coding data, Wilson and Donenberg (2004) also found that for caregiver–adolescent dyads in which parents scored poorly on communication (i.e., were rated to have criticized/disagreed, dominated/demanded, and/or disengaged/avoided during a conversation with their teen), adolescents were less likely to engage in risky sexual behaviors. Yet, others have found this association to be true only for girls, and not for boys (Nappi et al., 2007). Of note, Wilson and Donenberg did not find any racial or ethnic differences in this association, although they compared only White to non-White youth (e.g., unable to parse out specific differences for Latinx youth). The association between adolescent-perceived negative communication and decreased sexual behavior for Latinx youth may be explained by *respeto*—a cultural belief in respect toward parents and authority figures (Ma et al., 2014). Guilamo-Ramos et al. (2009) found that Latinx youth were less likely to engage in sexual activity if they believed their mothers did not approve of it. However, youth's perception of what their mothers approved of and the mothers' actual expressions of approval/disapproval were weakly related. This discrepancy suggests a disconnect in communication between mothers and adolescents and that this miscommunication often leads youth to assuming their mothers do not approve of their sexual activity. Furthermore, it can be postulated that many youth avoid conversations about sexual activity with their parents as a way of respecting their authority or because they perceive their parents want to avoid these conversations. In our sample, more negative communication may be related to erroneous perceptions of what parents think about sexual activity, resulting in decreased sexual behavior.

Neighborhood

For Latinx adolescents, we found that their perceptions of factors related to neighborhood disadvantage were associated with both internalizing symptoms and posttraumatic stress disorder (PTSD) symptoms. Previous research with community samples has shown similar associations with greater neighborhood disadvantage, such as more adolescent internalizing symptoms (Roche et al., 2007). The combination of adolescent-reported neighborhood disadvantage and increased psychiatric symptoms (i.e., PTSD and internalizing symptoms) among this sample may be related to the deleterious effects of stressors commonly observed in disadvantaged communities. For example, we found high rates of trauma exposures among this sample (73% reported at least one traumatic experience; Hoskins et al., 2019). Studies of neighborhood disadvantage have also shown high rates of psychiatric symptoms related to both direct and indirect community violence and disproportionate contact with the justice system (Chen et al., 2017; Stansfeld et al., 2017). Contrary to prior research (Grunwald et al., 2010), neighborhood disadvantage was not associated with adolescent substance use. The association between neighborhood disadvantage and increased risk for substance use might be neighborhood specific. That is, research has shown that living in a community of predominantly Latinx immigrants in a disadvantaged neighborhood was associated to a decrease in binge drinking (Kimbro, 2009).

We found that caregivers' perceptions of neighborhood disadvantage were associated with a decrease in sexual activity. Findings on the link between perceived neighborhood disadvantage and sexual behaviors have been mixed. For example, some studies have

found perceived neighborhood economic and social disadvantage predicting earlier sexual initiation (Cubbin et al., 2005; Dupéré et al., 2008). However, these studies were conducted with non-Latinx and non-justice-involved adolescents. Other studies have shown that parents of justice-involved youth and parents' perceptions of neighborhood violence have been linked to more parental monitoring as a way to prevent future reoffending/recidivism (Ceballo et al., 2012; Williams & Steinberg, 2011). Perhaps for Latinx caregivers, perceptions of socially disadvantaged neighborhoods intensify their need to increase parental monitoring(Williams&Steinberg,2011).Lastly, while there is limited research on neighborhood cohesion as a possible promotive factor, neither caregivers' nor adolescents' perceived degrees of neighborhood cohesion were associated with adolescent psychiatric symptoms, substance use, or sexual activity. Therefore, our data provide further support for neighborhood-level interventions such as community-involved and driven treatment to address collective trauma and for treating related symptomatology (i.e., PTSD symptoms and internalizing symptoms; see Hoskins et al., 2019, for elevated rates of internalizing symptoms for trauma-exposed vs. non-trauma-exposed adolescents).

School

Our study contributes a novel examination of the relationship between the caregiver's interactions with the adolescent's school and adolescent psychiatric symptoms, substance use, and sexual activity. Caregivers' increased contact with teachers was associated with more externalizing behaviors, which is understandable given the cross-sectional nature of our data; if an adolescent is acting out in school, parents will likely also report increased contact with the school in the same timeframe (i.e., there could be a bidirectional effect that we were not able to disentangle in this analysis). Similarly, the caregiver's endorsement of the school was related to fewer adolescent externalizing symptoms. The two findings together suggest, similar to Szapocznik and Coatsworth (1999), that interactions between the two systems (i.e., caregivers and school) can promote healthy outcomes or create unhealthy outcomes such as disruptive behaviors. Previous literature suggests that the relationship between the caregiver–school–teacher can increase prosocial behaviors of the youth (Santiago et al.,2016).While there is a dearth of literature related to caregiver–school–teacher relationships and youth's sexual activity, surprisingly, both the caregiver–teacher relationship and the caregiver's endorsement of their adolescent's school was associated with an increase in sexual activity. This may reflect a decrease in caregivers' monitoring of their youth related to increased confidence and trust in school and school-related activities. To reduce externalizing behaviors at school, interventions can target strengthening relationships between teachers and caregivers. In addition, courts can partner with schools to identify families with potentially unmet behavioural health needs to begin providing specialty services. Lastly, increased communication between schools and caregivers related to healthy sexual development and conversations that should be had within each environment, would help to decrease early sexual activity in the face of increased communication between the two systems (i.e., family and school).

The adolescents' interactions at school provided separate and unique insights into unaddressed behavioral health needs. We found that adolescents who perceived more negative peer interactions at school also reported more internalizing symptoms. Previous

studies have shown similar findings between negative interactions at school and internalizing symptoms for Latinx adolescent in community samples, noting that these interactions are linked to ethnic-biased and verbal or relational negative peer interactions (Calzada et al., 2015; Vervoort et al., 2010). With justice-involved and/or truant adolescents often labeled as “bad kids,” multiple layers of stigma, oppression, and marginalization may further exacerbate these symptoms. As Latinx adolescents constitute the highest increase in students enrolled in U.S. K–12 schools (16% to 25% from 2000 to 2017; de Brey et al., 2019), and given the recent surge of negative sociopolitical rhetoric targeting Latinx communities, there is potential for even more negative interactions toward minority adolescents, thereby possibly increasing the likelihood of more psychiatric distress and internalizing symptoms such as depression and anxiety. School assessment and intervention should incorporate more screening measures for both peer interactions and psychiatric distress (internalizing symptoms) and, ultimately, incorporate interventions that promote effective coping strategies among students.

Acculturation Gap-Distress

Among our sample of FTO-CINI Latinx adolescents, the caregiver–adolescent acculturation gap moderated the association between negative communication and adolescent substance use. Wider acculturation gaps between caregivers and adolescents and negative communication interacted and were associated with greater lifetime adolescent alcohol and cannabis use. These findings are in line with a number of prior studies, using community-based samples, that have shown a relationship between the caregiver–adolescent acculturation gap and adolescent risk behaviors (Martinez, 2006; Unger et al., 2009). Prior research has also shown that acculturation gaps are associated with higher levels of family stress and dysfunction, poor communication, and risk behaviors such as substance use in adolescents (Martinez, 2006). For FTO-CINI adolescents in particular, behaviors like substance use have been shown to elevate risk for other psychiatric symptoms such as depression, anxiety, and suicidal ideation and increase risk for recidivism and justice involvement, particularly if unassessed and unaddressed (Yonek et al., 2019). Understanding the acculturation gap’s role in Latinx families with justice-involved adolescents seems critical given that previous studies have shown that integrating immigration and culture-specific components in interventions improves treatment (Griner & Smith, 2006; Parra-Cardona et al., 2019).

Limitations and Future Research

Our findings represent an important contribution to understanding some of the unique family, school, neighborhood, and cultural factors associated with risk profile behavioral health needs of justice-involved Latinx adolescents. However, our study is not without limitations. First, we had a small sample size and used multiple imputations for one measure. Larger sample sizes with multiple measures are needed to replicate our findings. Second, our study was cross-sectional, limiting the degree to which conclusions may be drawn related to temporal directionality and the ability to identify variables as promotive and inhibitive factors. However, the evidence provided supports future longitudinal study designs to examine these associations prospectively to further validate our findings. Third, cultural context is critical to understanding how best to support adolescents’ needs. While we took

the acculturation gap into consideration, just examining close versus distant acculturated dyads in no way represents a complete picture of this complex social phenomenon. A recent review of literature suggested that both the absolute level of acculturation (i.e., how "Americanized" the caregiver/adolescent is) and the size of the gap are important considerations, as gap size may be similar across dyads while outcomes differ as a result of absolute level of Americanization (Schwartz et al., 2018). Similarly, the speed at which an individual becomes acculturated varies, with factors such as time spent in school and at work shown to affect the rate at which acculturation occurs (Kessler & Milligan, 2019). In addition, acculturation gaps may widen or close over time, causing risk levels to shift. Our point-in-time analysis is therefore not dynamic enough to capture acculturation's true impact on adolescents' long-term outcomes.

Further research should also consider country of origin and location in the United States as important factors. Schwartz et al. (2012) found that both country of origin (i.e., Mexico vs. Puerto Rico) and location in the United States (i.e., Los Angeles vs. Miami) played a role in the extent to which the acculturation gap influenced adolescent risk behaviors. Another suggestion for further research is examining if treatment interventions for Latinx families that target the acculturation gap between adolescent–caregiver dyads have a positive effect on adolescent outcomes or whether such intervention approach is effective when integrated or used adjunctively with other evidence-based treatments (e.g., for adolescent substance use) for Latinx justice-involved youth.

Clinical Implications

We addressed a dearth of research on Latinx adolescents and their families involved in the justice system along with the relationship between family, school and neighborhood; behavioral health needs; and the acculturation gap and used multiinformant, multisystem perspective data. Our findings stress the need to improve the examination of the multiple systems as a starting point for both assessment and intervention for Latinx adolescents involved in the justice system. Interventions for Latinx families can benefit from increased attention to the quality of caregiver–adolescent attachment as they appear to protect against behavioral health needs. Comprehensive assessment and intervention of the school environment is also recommended, which includes peer relationships and, intervention targeting the relationship between the school and caregiver.

At first point of contact with the court system, the primary goal is to facilitate desistance from future illicit activity by providing referrals to treatment and community support. Intricacies specific to justice-involved Latinx adolescents are apparent and necessitate treatment interventions targeting both the heterogeneity and intersecting identities of these adolescents, such as acculturation and caregiver–adolescent acculturation differences, among many others (see Parra-Cardonaet al.,2019).The observed impact of the group with a larger acculturation gap on substance use behaviors provides evidence for a potentially effective intervention focus for Latinx adolescents. As adolescents whose families are close in acculturation exhibit less risk around substance use (and therefore subsequent risk for comorbid psychiatric disorders and continued court involvement), targeting interventions that address the acculturation gap could yield positive effects.

For Latinx families living in the United States, our results give credence to previous research that has identified an increased risk for intergenerational conflict related to culture and acculturation differences between the caregiver and adolescent (Pantin et al., 2003). The potential intensification of family conflict has been linked to Latinx adolescents high rates of substance use and earlier initiation into illicit substance (Johnston et al., 2007). Therefore, treatment interventions for Latinx adolescents in contact with the justice system would benefit from illicit cultural tailoring, such as involving the entire family system and attending to acculturation differences. There have been promising treatment interventions to target the role of culture and acculturation, which at their root, integrate family into treatment of Latinx adolescents. The treatments that have been utilized for Latinx families in preventing/treating substance use, include Family Effectiveness Training(Szapocznik et al.,1978),Familias Unidas (Pantin et al., 2004; Prado et al., 2007), and Keepin' it REAL (Gribble et al., 2005). In order for Latinx adolescents to have their behavioral health needs met, court procedures for Latinx families can implement acculturation-related screeners to discern differing cultural values that may be underlying reasons for conflict and make referrals to community partners to address these conflicts, ultimately reducing psychiatric symptoms and substance use and deterring future justice involvement and recidivism.

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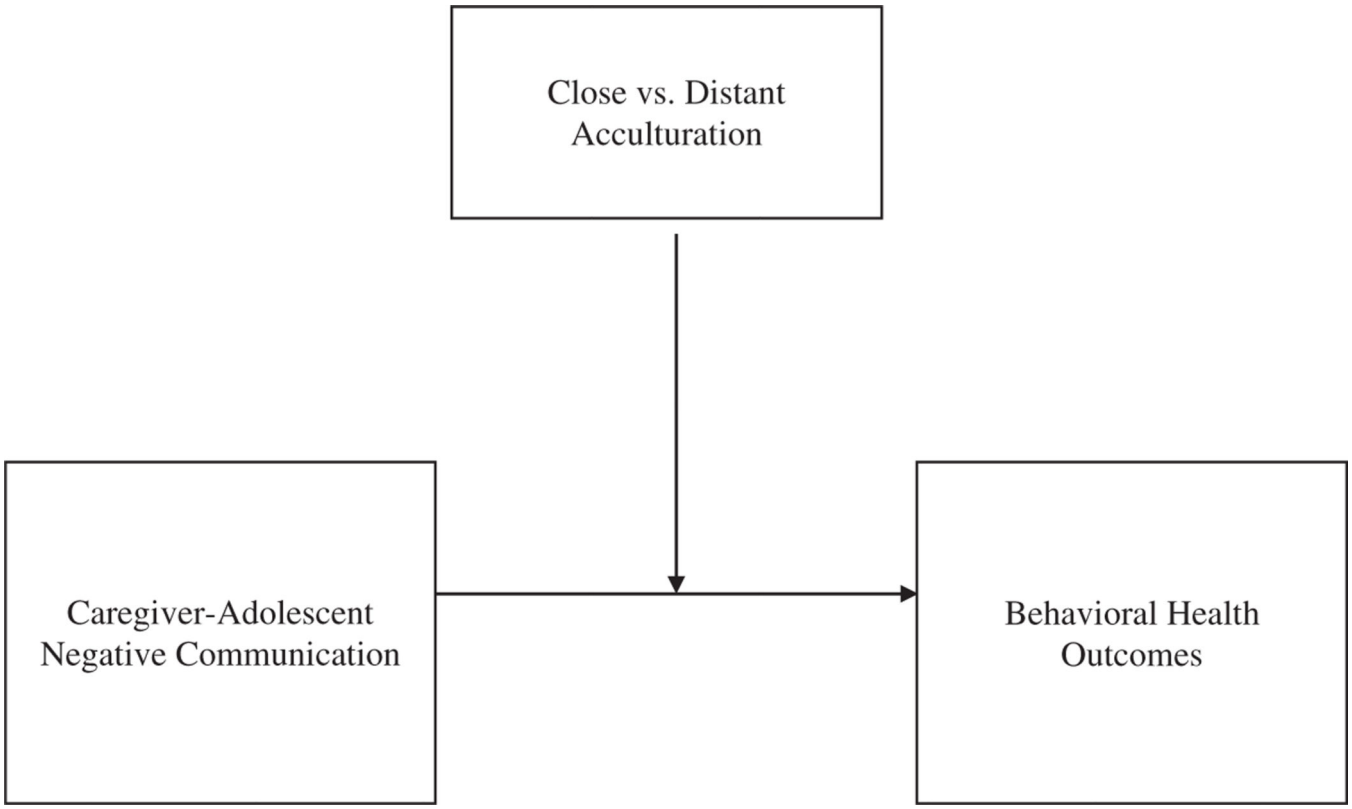

Figure 1. Acculturation Gap-Distress

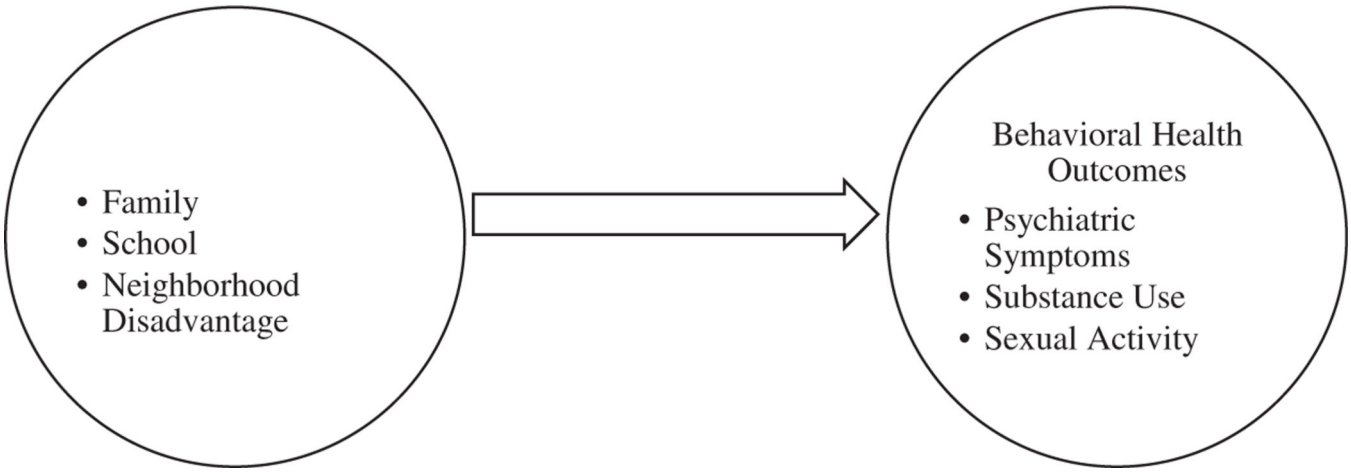

Figure 2. Associations Between Family, School, and Neighborhood Factors and Behavioral Health Outcomes

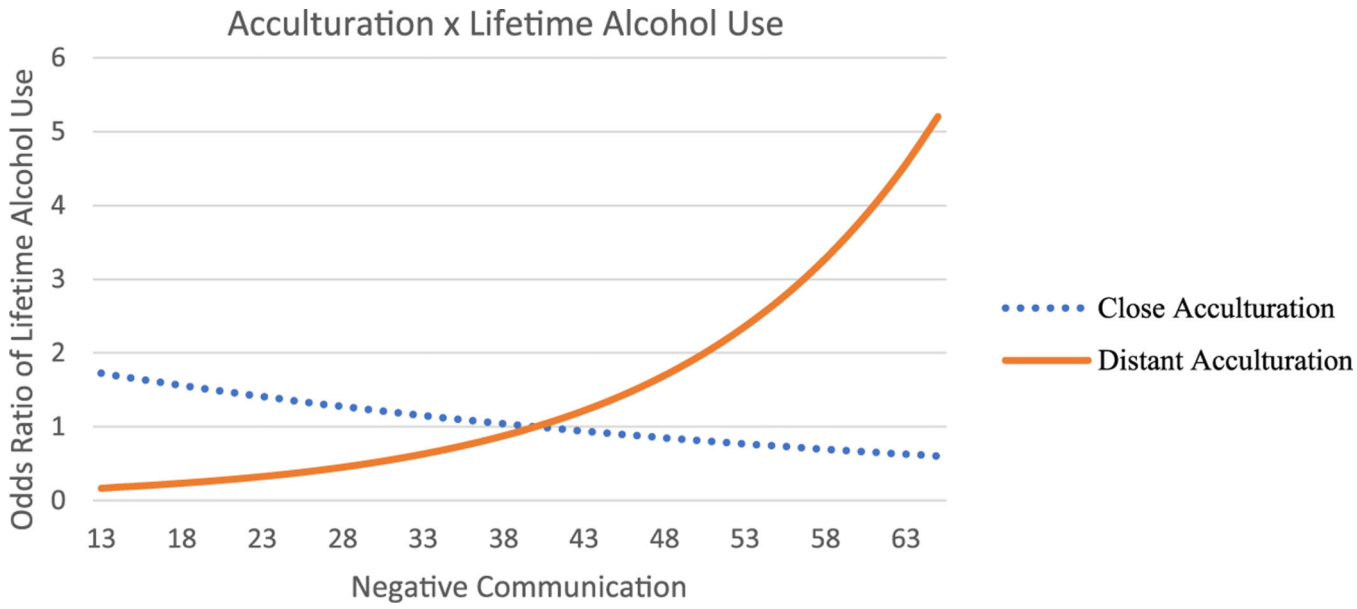

Figure 3. Association Between Acculturation and Lifetime Alcohol Use

Note. See the online article for the color version of this figure.

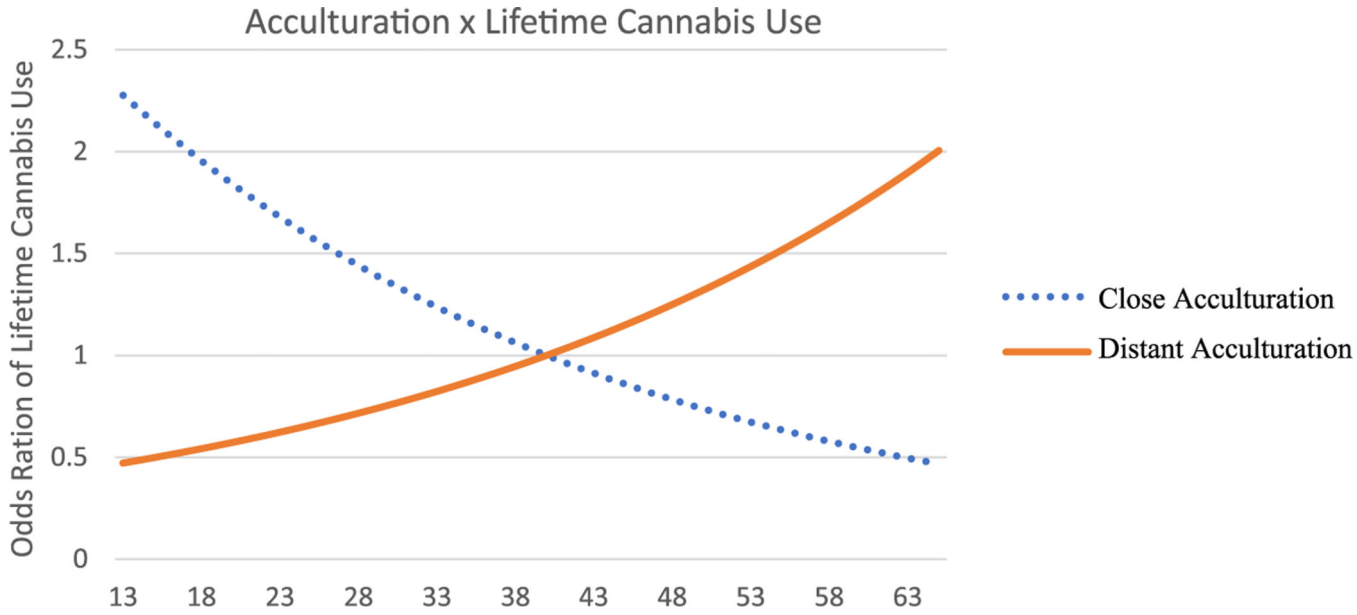

Figure 4. Association Between Acculturation and Lifetime Cannabis Use

Note. See the online article for the color version of this figure.

Table 1

Demographics of First-Time Offending, Court-Involved Nonincarcerated Latinx Adolescents

Characteristic	Total (*N* = 181), *M* (*SD*) or *n* (%)	Status (*n* = 69), *M* (*SD*) or *n* (%)	Delinquent (*n* = 112), *M* (*SD*) or *n* (%)	*p*	Male (*n* = 100), *M* (*SD*) or *n* (%)	Female (*n* = 79), *M* (*SD*) or *n* (%)	*p*
Age	14.61 (1.5)	14.46 (1.59)	14.71 (1.45)	.28	14.62 (1.51)	14.49 (1.56)	.72
Gender							
Male	100 (55%)	40 (40%)	60 (60%)	.65			
Female	79 (44%)	29 (37%)	50 (63%)				
Latinx origin							
Puerto Rican	94 (53%)	40 (68%)	53 (60%)	.33	54 (62%)	39 (64%)	.82
Dominican	55 (31%)	19 (32%)	36 (40%)		33 (38%)	22 (36%)	
Adolescent place of birth							
Foreign born	15 (8%)	6 (9%)	9 (8%)	.85	8 (8%)	7 (9%)	.82
U.S. bom (mainland)	165 (92%)	62 (91%)	103 (92%)		92 (92%)	71 (91%)	
Caregiver place of birth							
Foreign born	97 (54%)	34 (50%)	63 (56%)	.42	54 (54%)	41 (53%)	.85
U.S. bom (mainland)	83 (46%)	34 (50%)	49 (44%)		46 (46%)	37 (47%)	
Receive public assistance	153 (85%)	62 (90%)	91 (81%)	.29	86 (86%)	66 (84%)	.89
Education level							
6–8th grade	66 (36%)	30 (43%)	36 (33%)	.07	35 (35%)	30 (39%)	.61
9–12th grade	113 (62%)	39 (57%)	74 (67%)		65 (65%)	47 (61%)	
Ever been expelled	42 (23%)	10 (14%)	32 (29%)	.03	23 (23%)	19 (24%)	.87
Ever had individualized education program	64 (36%)	21 (30%)	43 (38%)	.19	40 (40%)	23 (29%)	.12

Note. Two juveniles did not identify a gender. Because of rounding, percentages may not equal 100. Chi-square statistic reported for dichotomous data, *t* test for continuous.

Table 2

Bivariate Analyses of Family, School, and Neighborhood by Court Status and Gender

Variable	Total (*N* = 181), *M* (*SD*) or *n* (%)	Status (*n* = 69), *M* (*SD*) or *n* (%)	Delinquent (*n* = 112), *M* (*SD*) or *n* (%)	*p*	Male (*n* = 100), *M* (*SD*) or *n* (%)	Female (*n* = 79), *M* (*SD*) or *n* (%)	*p*
Family							
Attachment							
Parent all (A)	89.22 (17.08)	88.39 (17.22)	89.79 (17.06)	.61	90.38 (16.71)	88.10 (83.98)	.40
P-A negative communication							
Caregiver	38.47 (7.61)	38.79 (8.00)	38.28 (7.39)	.66	37.82 (7.66)	39.24 (7.59)	.22
Adolescent	40.59 (8.80)	40.35 (7.70)	40.74 (9.48)	.79	40.00 (8.67)	41.01 (8.62)	.47
Acculturation							
Close	50.08%	49.52%	50.61%	.78	47.14%	55.07%	.05
Distant	49.92%	50.48%	49.39%		52.86%	44.93%	
Neighborhood variables							
Disadvantage (C)	1.62 (2.17)	1.75 (2.18)	1.54 (2.17)	.55	1.81 (2.30)	1.40 (2.00)	.24
Cohesion (C)	21.22 (6.51)	21.21 (6.24)	21.23 (6.69)	.99	20.74 (6.55)	21.85 (6.43)	.28
Disadvantage (A)	1.41 (1.93)	1.53 (2.02)	1.33 (1.87)	.50	1.40 (2.01)	1.40 (1.83)	.99
Cohesion (A)	22.62 (6.16)	22.91 (6.26)	22.43 (6.12)	.63	21.62 (6.02)	23.82 (6.15)	.02
School *n* = variables							
P-T contact (C)	2.20 (0.78)	2.20 (0.84)	2.21 (2.07)	.94	2.22 (0.83)	2.16 (0.71)	.62
Quality (C)	3.51 (1.29)	3.27 (1.03)	3.65 (0.86)	<.01	3.57 (0.89)	3.41 (1.00)	.25
Endorsement (C)	3.85 (0.91)	3.69 (1.09)	3.94 (0.77)	.08	3.90 (0.88)	3.76 (3.54)	.31
Negative interactions (A)	2.37 (1.83)	2.37 (2.09)	2.37 (1.65)	.99	2.27 (1.24)	2.49 (2.37)	.42
Positive interactions (A)	2.57 (2.40)	2.66 (2.67)	2.52 (2.19)	0.70	2.7 (1.85)	2.55 (2.75)	.67

Note. A = adolescent response; C = caregiver response.

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Table 3

Family Variables, Neighborhood, and School by Psychiatric and Behavioral Health Needs, Adjusted for Age

Variable	Caregiver–externalizing	Internalizing	NSESSS	Sex active	Alcohol use	Cannabis use
Family						
Attachment						
Parent—all (A)	−0.17**	−0.33***	−0.002	0.99	0.96***	0.97***
Negative communication						
Caregiver	0.52***	0.23	0.01	1.00	1.04	1.03
Adolescent	0.02	0.19	0.03**	0.95**	1.02	1.02
Neighborhood						
Disadvantage (C)	0.73	−0.70	0.02	0.81**	0.89	0.99
Cohesion (C)	0.11	−0.01	−0.01	1.00	0.99	0.96
Disadvantage (A)	0.59	1.63***	0.14***	1.11	1.01	0.96
Cohesion (A)	−0.07	0.09[a]	0.10	1.01	1.03	1.03
School						
P-T Contact (C)	4.48***	2.16	0.02	1.05	0.88	1.01
Quality (C)	0.72	−1.51	−0.10	2.03***	1.39	1.20
Endorsement (C)	−3.67***	−1.58	0.02	1.79**	1.33	0.92
Negative interactions (A)	0.66	3.05***	0.11	1.08	1.09	1.04
Positive interactions (A)	−1.92	0.24	−0.01	1.10[a]	1.09	1.02

Note. NSESSS = National Stressful Events Survey PTSD Short Scale; A = adolescent response; C = caregiver response. All odds ratios and coefficients adjusted for age unless specified.

[a]Coef/odds ratios adjusted for age and gender.

*$p = .05$.

**$p < 0.05$.

***$p < 0.01$.