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The Impact of Latino Caregiver Acculturation on Treatment Engagement in Children's Community Mental Health Services

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Abstract Ongoing treatment engagement is low in children's community mental health. Although concerns are more pronounced for racial/ethnic minorities, findings have been mixed when comparing racial/ethnic minorities with Non-Hispanic Whites. Within-group variability, such as level of acculturation, may be a more proximal predictor of treatment engagement. The current study aimed to examine the effect of Latino caregivers' acculturation on ongoing treatment engagement indicators, specifically session attendance, premature treatment termination, and treatment satisfaction. Participants were families of youth, ages 5–15, with a Latino primary caregiver ($N = 93$) receiving treatment for anxiety/trauma, depression, or disruptive behavior problems in community-based mental health agencies. Caregivers were classified into low and high acculturation groups using latent class analysis based on demographic indicators, such as nativity status and primary language spoken. Groups significantly differed in terms of caregivers' nativity status, age at immigration, primary language spoken, language of study assessment completion, and language spoken in the home. Families of low acculturation caregivers no showed to significantly fewer planned treatment sessions than families of highly acculturated caregivers. Treatment satisfaction did not differ between groups. Low acculturation families also had lower odds of prematurely withdrawing from treatment. Results of this study highlight the importance of considering family characteristics such as acculturation when engaging families in treatment.

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Introduction

Although an estimated 20–40 % of youths have a psychiatric disorder (Costello et al. 2011), four national surveys conducted between 1996 and 2004 have shown that approximately 50–80 % of youth with demonstrated mental health needs did not receive any mental health services (Kataoka et al. 2002; Merikangas et al. 2011). Equally troubling, among those who do enroll in mental health services, engagement in those services is low. For instance, studies have demonstrated that attendance is often poor (Harpaz-Rotem et al. 2004) and that there are high rates of premature termination for youths receiving community-based mental health services (Armbruster and Kazdin 1994; Office of Applied Studies (OAS) 2000; Pellerin et al. 2010; Weisz et al. 1987). Given earlier research suggesting that engagement in treatment is necessary to reap maximal benefit (Prinz and Miller 1991), there have been increasing efforts to measure and better understand treatment engagement.

As a whole, treatment engagement outcomes can be considered in terms of a cognitive or attitudinal domain, as well as a behavioral domain (Lindsey et al. 2014). The cognitive or attitudinal domain, defined by Staudt (2007) refers to a client's "emotional investment in and commitment to treatment that follow from believing that it is worthwhile and beneficial (p. 185)." The behavioral domain is conceptualized as client's behaviors towards receiving therapy, such as treatment attendance (Staudt 2007). Further, a common delineation in this literature divides treatment engagement into "initial" versus

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"ongoing" engagement. Initial engagement encompasses the identification of need, connection to and acceptance of services, and uptake into therapy. Then, ongoing treatment engagement can be indexed by session attendance, treatment adherence (e.g., homework completion), positive attitudes towards treatment, and completion of treatment once the presenting problem is resolved (Staudt 2007). A lack of ongoing engagement may present as a high rate of cancellations or no shows, poor completion of homework or between-session practice, poor attitudes towards treatment, and/or treatment attrition.

Concerns about ongoing treatment engagement become more pronounced in the context of services for racial/ethnic minorities. Despite similar rates of mental health need, some research has noted racial/ethnic disparities in ongoing engagement in mental health services (e.g., Garland et al. 2005; Miller et al. 2008). For example, compared with Non-Hispanic Whites (NHW), ethnic minority youth have fewer mental health visits (Hough et al. 2002), poorer attendance (Armbruster and Fallon 1994), and are more likely to drop out from treatment (de Haan et al. 2013; Kazdin and Mazurick 1994; Miller et al. 2008). The higher rates of unmet mental health need and poorer treatment engagement among racial/ethnic minorities may be due to the experience of more barriers to treatment (Kazdin et al. 1997; McCabe 2002; Staudt 2007).

While there is some evidence for racial/ethnic disparities in ongoing engagement, other studies have failed to demonstrate differences across racial/ethnic groups. In these studies (e.g., Brookman-Frazee et al. 2008; Bui and Takeuchi 1992), disparities are instead attributed to other client characteristics. For example, ethnic minority status has been found to be unrelated to treatment attendance after accounting for factors including symptom severity, family agreement on treatment goals (Brookman-Frazee et al. 2008), poverty status, referral source, and diagnosis (Bui and Takeuchi 1992). In fact, racial/ethnic minorities have actually reported fewer perceived barriers to treatment compared to NHWs, despite having a higher rate of unmet need (Yeh et al. 2003). Given the equivocal nature of findings in previous studies, it is unclear how racial/ethnic disparities might impact ongoing engagement.

Some of these mixed findings on racial/ethnic disparities in treatment engagement could be the result of methodological issues related to the inclusion of heterogeneous racial/ethnic minority groups. Notably, some studies have found racial/ethnic minority status to be a predictor of poor treatment engagement, grouping Asian Americans, African Americans, Latinos, and others together in contrast with NHWs (e.g., Barrett et al. 2008; Kazdin and Mazurick 1994; McKay and Bannon 2004). These findings may be indicative of factors common to racial/ethnic minority groups, such as poverty or mistrust, which may influence

engagement more directly. Other studies have investigated between-group differences comparing, for example, Latinos with NHWs, finding that particular racial/ethnic groups may be at increased risk of unmet need (Garland et al. 2005). Overall, the results of these studies have drawn attention to underserved groups, but further highlight that there is nothing inherent about race or ethnicity to lead to poor treatment engagement. In light of this understanding, examination of within-group differences may refine our understanding of disparities, and, therefore, continued research is likely to benefit from a greater examination of proximal variables that may underlie within-group differences.

Given that Latinos account for the largest proportion of racial/ethnic minorities in the U.S. and have high rates of immigration, they present an ideal opportunity to examine within-group differences. The vast majority of Latino children are U.S.-born, and about half of those children have at least one immigrant parent (Fry and Passel 2009). Latino immigrants have been shown to differ in a number of ways compared to U.S.-born Latinos, such as educational attainment, English language proficiency, marital status, experience of immigration stressors, and acculturation. Immigrant parents are more likely to have less than a high school education than non-immigrant parents, and typically demonstrate lower levels of English proficiency. Additionally, a large majority of children of immigrants live in dual parent households compared with only about half of children of non-immigrant families (Fry and Passel 2009). Some of these factors have been associated with lower ongoing treatment engagement, such as lower parental education (Kouyoumdjian et al. 2003; McCabe 2002; McKay et al. 2001), whereas others, like having a dual parent household, are protective (McKay et al. 2001; see Miller et al. 2008). The richness of within-group heterogeneity has been explored through the examination of proximal variables, such as acculturation.

As noted above, acculturation is one such variable that contributes to within-group heterogeneity among US Latinos. Acculturation is defined as a dynamic process in which a person's attitudes and behaviors may be influenced and changed as a result of contact and interaction with those of the host culture (Moyerman and Forman 1992). Some models of acculturation propose a unidimensional model in which acculturation to a host culture lies on one end of a continuum and maintenance of values of a culture of origin on the other (Szapocznik et al. 1978). Other frameworks conceptualize acculturation as a bidimensional model with level of acculturation to a host culture on one dimension and affinity to a culture of origin on another (Berry 1997). In these models, individuals may be acculturated to a host culture, such as speaking English well, while maintaining traditional values. Overall, whether

using a unidimensional or bidimensional framework, the process may impact the person's identity and sense of belongingness (Rogler et al. 1991), which in turn may contribute to significant within-group variability in treatment engagement.

As such, researchers have proposed that acculturation may differentially impact engagement, depending on whether one is examining initial, (i.e., service uptake), or ongoing engagement. McCabe (2002) suggested that although acculturation may improve initial engagement, it may be less relevant to ongoing engagement. For example, in terms of initial engagement, a large survey study of ethnically diverse at-risk youth using a bidimensional measure of acculturation to affinity to mainstream American culture and to an Alternative, non-American culture of caregivers' indication found that Latino caregivers' higher affinity to an Alternative, non-American culture partially mediated the relationship between race/ethnicity and mental health service utilization. It also reduced the odds of those families utilizing services (Ho et al. 2007). However, findings on ongoing engagement have been mixed. For instance, in the adult literature, Miranda et al. (1976) found that less acculturated Latino adults were more likely to prematurely terminate treatment than more acculturated clients. While, on the other hand, in a more recent study, a sample of Latino adults receiving treatment at a community mental health clinic failed to show a significant difference in acculturation levels among regular treatment attendees and those who terminated prematurely (Santiago-Rivera et al. 2011). Still, given the paucity of research on the relationship between acculturation and ongoing engagement within youth samples necessitates further exploration.

Although research has not revealed consistent associations between acculturation and engagement, there are some conceptual reasons to suspect possible differences. First, recently immigrated and less acculturated families may have to contend with immigration-specific stressors and acculturative stress that may interfere with robust engagement in care including, income/job insecurity, limited language access, fragmented or distant support networks, or legal issues associated with residency (Rogler et al. 1991). About 40 % of U.S. born Latino children have at least one undocumented immigrant parent (Fry and Passel 2009), which comes at the cost of considerable stress and instability (Arbona et al. 2010; Detlaff and Cardoso 2010) that may disrupt a family's capacity to maintain consistent attendance (e.g., Kazdin and Mazurick 1994; McKay et al. 2001; Barrett et al. 2008; McCabe et al. 1999; McKay and Bannon 2004).

On the other hand, traditional values held among less acculturated Latinos, may promote ongoing treatment engagement. For example, respeto is defined as courtesy and consideration in interacting with people viewed as having a higher social or occupational position (Arredondo et al. 1996). Therapists may be viewed as professionals to whom respect may be accorded, and non-attendance or dropout may be considered disrespectful. Similarly, simpatia, a desire to avoid confrontation to maintain kindness (Applewhite 1998; Marin and Marin 1991), may increase compliance as families make concerted efforts to overcome barriers to attendance. Thus, although empirical data are scant on the association between acculturation and consistent engagement and persistence in youth mental health treatment, there are important conceptual reasons to examine this link.

Because there is nothing inherent about race or ethnicity that would lead to disparities in treatment engagement, it is important to consider the role of proximal variables, such as acculturation, which may better explain variation in treatment engagement. As such, research is needed to examine whether acculturation-related disparities in treatment engagement can impact family retention, attendance, and engagement attitudes. Given the volume of immigration, U.S. Latinos pose an ideal group in which to investigate possible patterns. In child therapy, much of the ongoing treatment engagement may be attributable to caregivers' engagement in services. In addition to being a frequent gateway into services, caregivers should also be involved in ensuring that the child receives the appropriate type and dose of treatment (Costello et al. 1998; Nock and Kazdin 2001). Thus, caregiver characteristics, such as level of acculturation, may impact ongoing treatment engagement, whether it is the caregiver or child who is supposed to attend.

The aim of this study was to examine ongoing (versus initial) engagement in therapy, specifically families' session attendance (in terms of missed sessions), premature termination, and overall treatment satisfaction (or attitudes toward treatment), as a function of Latino caregivers' level of acculturation during families' participation in different treatments for youth anxiety/trauma, depression, or disruptive behavior in the community mental health setting. Acculturation status was determined based on classification with proxy indicators such as caregivers' nativity status, language spoken, and time lived in the U.S. A better understanding of potential cultural moderators of engagement can inform decision-making, including targeted efforts to increase ongoing treatment engagement. Past research has had mixed findings as to the directional nature of the association between acculturation and treatment engagement, therefore, we proposed the following exploratory question: Does caregiver acculturation have significant association with family engagement in treatment in terms of treatment attendance, completion, and satisfaction?

Method

Participants

Included study families were receiving therapeutic services as part of standard procedures in three large, county-funded community mental health agencies in southern California as part of a larger trial examining the effectiveness of various treatment approaches. In order to qualify for services at these clinics, all families had to be recipients of Medi-Cal, California's state welfare program.

Eligible participants for the current study (N = 93) were youth, ages 5–15, with a Latino/Hispanic primary caregiver who had a final treatment session at time of data analysis, either through treatment completion or premature termination, prior to full completion of the larger clinical trial. Youth were receiving treatment for anxiety or trauma, depression, or conduct-related disorders such as Modular Approach to Treatment for Children (MATCH; Chorpita and Weisz 2009), Trauma-Focused Cognitive-Behavior Therapy (TF-CBT), Incredible Years, PATH, Triple P, Seeking Safety, PCIT, DTQI, or usual care as determined by agency assignment to therapist. Youth were the primary session participants in treatments addressing youth internalizing conditions (e.g., anxiety or depression), and caregivers were primary participants in treatments for externalizing conditions (e.g., conduct problems) as was determined by evidence-based practices for those conditions.

Therapists (n = 40) were primarily Master's level clinicians with specialties in marriage and family therapy, social workers, or clinical/counseling psychology working at one of the three community mental health agencies. One therapist held a Ph.D. in clinical/counseling psychology and one therapist had a Bachelor's degree. Of the 40 therapists, 11 were Caucasian, 19 were Latino/Hispanic, 4 were Asian, 1 was African American, and 5 were of mixed descent. Eighteen therapists indicated verbal fluency in Spanish.

Procedures

Families receiving care in the community mental health agencies were invited by their therapists to participate in a larger study examining the effectiveness of various treatment approaches. The families who consented to participate continued to receive treatment provided by their therapist and also participated in regular assessments with study personnel, for which they received monetary compensation. Included families could elect to have therapy provided by a bilingual therapist if English was not their primary language. Therapists serving study families provided additional data on treatment attendance and completion.

Measures

Family Information Form (FIF)

The FIF collects information related to the family's composition, socio-economic status, child and caregiver characteristics, as well as the caregiver cultural variables of nativity status, years lived in the U.S., language spoken in home, and preferred language of interview and treatment.

Parenting Stress Index-Short Form (PSI-SF; Abidin 1995)

The PSI-SF is an established measure used to identify stress in the caregiver-child dyad. The 36-item PSI measures caregiver and child characteristics and situational factors that predict potential for caregiver behavior problems and child adjustment problems within the family system. The PSI yields a total stress score and scale scores measuring caregiver and child characteristics separately. A higher score on any of the domain scores is reflective of higher stress within the family system. The PSI-SF has a reported internal consistency of .91 and a 6-month test–retest reliability coefficient of .84 (Abidin 1995). The Spanish translation of the PSI-SF (Solis and Abidin 1991) has also been validated for Spanish-speaking populations. Within the current sample reliability of the measure was high ($\alpha = .94$). It was also similar in the Spanish and English versions ($\alpha = .93$ and .94 respectively).

Caregiver and Youth Satisfaction Scales (CSQ and YSQ)

The CSQ and YSQ are 8-item caregiver- and youth-report measures that are completed at the termination of treatment assessing perceptions of treatment quality, fit, effectiveness, and satisfaction. Items are rated on a 4-point scale, with higher scores indicating greater satisfaction. Youth under the age of seven were not administered the CSQ. Both the CSQ and YSQ were reliable within the current sample ($\alpha = .92$ and .82 respectively). The CSQ was translated into and back translated from Spanish using standard procedures by independent members of the study team. Reliability within groups who completed measures in Spanish or in English was similarly high ($\alpha = .93$ and .91 respectively).

Client Supervision Record

The Client Supervision Record tracks client attendance in terms of sessions held and who attended each session (e.g., child, caregiver). A session was indicated to have taken place if at least one participant, child or caregiver, attended. These records are provided to the study team by each family's therapist.

No Show or Cancellation Record

The No Show or Cancellation Record tracks missed treatment sessions, specifying no show, family-initiated cancellation, therapist-initiated cancellation, or missed attempt (e.g., client being absent from school while participating in mental health services provided by the community mental health agency in the school at a family's request). These records were also provided to the study team by each family's therapist.

Treatment Termination Record

The treatment termination record noted the nature of the client's termination from treatment as reported by each therapist and confirmed by consensus of the study team. Families could have a routine termination, withdraw or be lost to the therapist, or terminate for some other reason outside of the family's control. A routine termination was termination of treatment as mutually agreed upon by the family and the therapist. A family might withdraw from treatment or no longer be contactable by the therapist (i.e., withdrew/lost). Termination for reasons outside of the family's control either pertaining to the therapist (e.g., therapist leaving clinic) or other reasons (e.g., family moving to another city) was termed "other".

Data Analysis

Acculturation

Previous research has used various indicators, such as immigration status, length of time in the U.S., and language spoken, as proxies for acculturation. Other research has used acculturation measures that attempt to capture both proxy indicators and cognitive processes, such as attitudes and ethnic values (Thomson and Hoffman-Goetz 2009). While scholars have challenged the true utility of both proxy indicators and acculturation measures in truly capturing the acculturation process, they have admitted benefits of the utility of such measures (Alegria 2009). In terms of proxy indicators, language spoken, both at home and in interviews, generational status, and proportion of life lived in the U.S., used in conjunction with each other have demonstrated good internal scale reliability and a high correlation with full acculturation measures (Cruz et al. 2008). To identify acculturation subgroups in the current study, we used latent class analysis (LCA; Jung and Wickrama 2008) in MPlus 6.12 (Muthén and Muthén 1998–2010). LCA is a person-centered approach that uses individual response patterns to classify people into groups of similar individuals. Thus, groups are empirically-derived rather than theoretically-derived. LCA was done using variables of the caregiver's primary language (English, Spanish, or both), the language study assessments were conducted in (English or Spanish), language spoken in the home (English, Spanish, or both), nativity status (U.S.- or foreign-born), and age at immigration. The best class solution, or number of resulting classes, was determined by a combination of the lowest Bayesian information criterion and a significant Lo Mendell Rubin Likelihood Ratio Test. After using LCA to determine groupings, we conducted Chi-squared analyses, Fisher's exact tests, and t-tests for independent samples to confirm differences on grouping variables between acculturation groups.

Attendance

Client attendance was operationalized in the following ways: a ratio of type of missed treatment session, either no show or family-initiated cancellation, to number of planned sessions (defined as a previously scheduled session date and time) and ratio of number of sessions attended to number of planned sessions (or overall attendance rate). We selected to use these ratios because each client differed in number of planned sessions due to standard operating procedure of the community mental health clinics. Therapist-initiated cancellations were not included due to missed session occurring for reasons outside of the family's control. Missed attempts were also excluded because of the unclear nature as to whether clients were not present at school due to reasons related to therapy or reasons unrelated to therapy.

Primary Analyses

Groups were compared using Chi-squared analyses, Fisher's exact tests, and t-tests for independent samples to determine equivalence on baseline characteristics, other than those used for LCA, such as client and caregiver age, and client diagnosis. A multinomial regression was utilized to compare effects of acculturation on the categorical treatment completion variable (e.g., routine termination versus dropout versus other termination). Independent samples t-tests were conducted to examine effects of acculturation on the continuous measures of engagement (e.g., treatment attendance and treatment satisfaction). In the case of missing data on each variable, those cases were dropped from analyses as a listwise deletion. In doing so, analyses were more conservative than other methods, such as imputation of data.

Results

Tables 1 and 2 present youth and caregiver demographics and youth clinical characteristics for the overall sample and the high and low acculturation groups ($n = 46$ and 47

respectively). Besides culture-specific characteristics (e.g., primary language spoken in the home), groups differed on caregivers' education (i.e. high school completion). Low acculturation caregivers had completed less education, the majority not having completed high school. In addition to caregiver education level, other potential demographic characteristics (e.g., caregiver relationship to child, child's primary diagnosis, parenting stress, child age) were explored for potential covariance in primary analyses. However, none of these characteristics were significantly correlated with either acculturation status or the outcome variables, and therefore, not included in primary analyses.

The high acculturation group had a significantly higher rate of no shows to planned sessions compared to the low acculturation group [(91) = 2.80, $p < .01$]. The high acculturation group no-showed to 12.05 % of sessions versus about 4.79 % of sessions in the low acculturation group. However, groups were not significantly different in terms of family-initiated cancellations [$t(91) = .68$, $p > .05$]. Overall, the low acculturation group attended an average of 80.6 % of sessions compared with 74.4 % of sessions in the high acculturation group. However, this difference was only approaching significance [$t(85) = -1.76$, $p < .10$]. Due to possible differential impact of child-focused (e.g., internalizing problems) versus caregiver-focused (e.g., disruptive behavior problems) treatment on attendance, we also ran the analyses using this predictor and did not find significant group differences on no shows or family-initiated cancellations. Additionally, given the significant difference between low and high acculturation caregivers' high school completion rate, we also ran analyses controlling for education, and found that same pattern of results for no shows, family-initiated cancellations, and overall session attendance.

Table 3 displays rates of treatment completion. The multinomial regression model predicting type of treatment completion from the acculturation variable demonstrated a significantly better fit than an empty model [$\chi^2(2) = 6.23$, $p < .05$]. Families with less acculturated caregivers were 3.38 times more likely to have a routine termination than withdraw or be lost to the therapist compared to high acculturation families (OR = 3.38, $df = 1$, Wald = 5.93, $p < .01$). There was not a significant difference between routine terminations and withdrawal from treatment for other reasons out of the families' control such as the therapist leaving the agency (OR = 1.69, $df = 1$, Wald = .91, $p > .05$). As with attendance, child- versus caregiver-focused intervention did not make a difference on treatment attrition. Analyses controlling for caregiver education similarly did not change pattern of results.

Overall caregiver satisfaction was not significantly different between high and low acculturated caregivers [$t(77) = -1.09$, $p > .05$]. Overall satisfaction was high (M = 28.66, SD = 4.28, range 11–32). Similarly, there

were no significant effects of caregiver's acculturation on youth treatment satisfaction [$t(54) = -1.01$, $p > .05$]. Youth satisfaction was also high (M = 27.55, SD = 3.80, range 15–32). Neither caregiver nor youth satisfaction was significantly different by child- or caregiver-focused intervention. However, when controlling for caregiver education, low acculturation families had higher caregiver satisfaction (M = 30.49, SE = .73, range 11–32) versus high acculturation families (M = 27.91, SE = .67, range 17–32, F(1) = 6.46, $p < .05$). These results are tempered due to the fact that not all families completed caregiver or youth satisfaction measures (84.94 % for CSQ completion, 60.22 % for YSQ completion). However, rates of missing data were not systematically different between acculturation groups or by treatment completion status.

Discussion

There have been few investigations examining within-group variability in patterns of ongoing treatment engagement, specifically attendance, termination, and attitudes toward treatment for Latino families of children with mental health problems. This study suggests that caregiver acculturation may be an important factor when considering ongoing treatment engagement. Specifically, families with less acculturated caregivers had a lower percentage of no shows to planned sessions than families of more highly acculturated caregivers (4.79 vs. 12.05 %). However, acculturation did not appear to impact family-initiated cancellations, or cancellations with prior notification, or the overall rate of sessions attended. Despite the lack of significant findings in regards to family-initiated cancellations or overall attendance rate, the difference in no shows to planned sessions may be an important indicator of engagement beyond overall attendance rate. No shows may be reflective of a lower level of priority given to treatment as a whole since families do not notify their therapist of need to miss a session prior to the scheduled appointment. Additionally, families with less acculturated caregivers were about 3.4 times more likely to routinely terminate from treatment than dropout compared to their highly acculturated counterparts. These findings suggest that children in newcomer Latino families may have a greater continuity of care and a higher probability of treatment completion once they have entered into care. Moreover, less acculturated caregivers had higher satisfaction compared to more acculturated caregivers when taking into account caregiver education level. On the other hand, caregiver acculturation status did not affect youth satisfaction with treatment.

The lower percentage of no shows and higher treatment completion rate for families of less acculturated caregivers

Table 1 Youth demographic and clinical characteristics

Characteristic	Low acculturation ($n = 47$) M (SD)	High acculturation ($n = 46$) M (SD)	Total ($N = 93$) M (SD)	$t(df)$
Youth age	9.82 (3.18)	8.93 (2.70)	9.38 (2.97)	$t(91) = -1.44$
	N (%)	N (%)	N (%)	$\chi^2(df)$ or P
Sex				$\chi^2(1) = .11$
Boy	26 (55.32)	27 (58.70)	53 (56.99)	
Girl	21 (44.68)	19 (41.30)	40 (43.01)	
Primary diagnosis				$\chi^2(2) = .68$
Anxiety	11 (23.40)	13 (28.26)	24 (25.81)	
Depression	18 (38.30)	14 (30.43)	32 (33.33)	
Disruptive behavior	18 (38.30)	19 (41.30)	37 (39.78)	
Nativity status[a]				P = .16
U.S.-born	43 (91.49)	45 (97.83)	88 (94.62)	
Foreign-born	4 (8.51)	1 (2.17)	5 (5.38)	
Language(s) spoken[a]				P < .001
Primarily English	16 (34.04)	36 (76.60)	52 (55.91)	
Primarily Spanish	10 (2.13)	5 (10.87)	15 (16.13)	
Both English and Spanish	21 (44.68)	5 (10.87)	26 (27.96)	

*** $p < .001$

[a] Validity check of acculturation grouping

contradict the commonly held assumption that families more assimilated to U.S. culture may have fewer no shows and premature terminations (e.g., Miranda et al. 1976; Wells et al. 1987). Despite the many challenges and hardships that families newer to the U.S. might face, they may also have significant unrecognized strengths that promote engagement once they enter into care. For example, *respeto*, a traditional Latino cultural value, may encourage caregivers to view therapists as authority figures thereby serving as a protective factor for ongoing treatment engagement. Caregivers with higher levels of *respeto* may be more apt to maintain that respect for therapists, thus, notifying them in advance should they need to miss a scheduled session. Similarly, the cultural value of *simpatia*, or the desire to avoid conflict to maintain kindness, may encourage families to continue in care even if they do not necessarily agree that continued intervention is necessary. Another possible explanation for the study findings may lay in the fact that being served by community mental health agencies with therapists of similar backgrounds may have addressed many of the stressors associated with immigration and acculturation. For example, all agencies had that capability of providing services in Spanish to address language barriers. Additionally, being connected with a therapist and an agency may have built up a support network for those caregivers may have lost in immigration to the United States, which then may have reinforced the importance of the agency within the

families' lives. Thus, families may have been more willing to engage in therapeutic services.

For families of more highly acculturated caregivers, higher rates of no shows and greater likelihood to drop out of treatment may be reflections of both similar and distinct processes as those at play for less acculturated families. For instance, families of more highly acculturated caregivers may feel greater connectedness to other sources of support because availability of such services given their acculturation to mainstream American culture. These families may not necessarily seek a therapist or community mental health agency as a means to develop connectedness or belongingness. Another possibility is that these families have a lower sense of interdependence and, thus, caregivers may have less practical support in maintaining the demands of treatment, such as childcare for other siblings when caregivers need to attend treatment sessions, thereby reducing ongoing engagement.

Higher engagement amongst less acculturated caregivers in this study may seem to contrast findings by Ho et al. (2007) that demonstrated lower engagement among Latino families whose caregivers had a higher affinity to an Alternative, non-American culture. However, it is important to note that the earlier study examined engagement in terms of families having utilized services within a 1-year period. Service utilization is distinct from ongoing engagement as operationalized in this study because it does not speak to the level of attendance or

Table 2 Primary caregiver demographics

Characteristic	Low acculturation (n = 47) M (SD)	High acculturation (n = 46) M (SD)	Total (N = 93) M (SD)	t(df)
Age	38.21 (7.90)	34.87 (9.14)	36.47 (8.69)	t(86) = −1.83
Number of dependents in the home	4.12 (1.17)	3.90 (1.67)	4.01 (1.44)	t(81) = −.69
PSI total score	94.97 (22.75)	95.93 (25.88)	95.48 (24.31)	t(77) = .17
Age at immigration[a]	21.42 (4.63)	1.95 (3.49)	11.32 (10.60)	t(77) = −21.21***
	N (%)	N (%)	N (%)	χ^2(df) or P
Sex				χ^2(1) = .08
Male	6 (12.77)	5 (10.87)	11 (11.83)	
Female	41 (87.23)	41 (89.13)	82 (88.17)	
Relation to youth				P = .08
Biological father	5 (10.64)	5 (10.87)	10 (10.75)	
Biological mother	40 (85.11)	38 (82.61)	78 (83.87)	
Other caregiver	2 (4.26)	3 (6.52)	5 (5.39)	
Education level				χ^2(1) = 4.68*
Some high school or less	25 (53.19)	18 (39.13)	43 (46.24)	
High school diploma	5 (10.64)	13 (28.26)	18 (19.35)	
Unknown	11 (23.40)	12 (26.09)	32 (34.41)	
Employment status				
Not working	28 (59.57)	22 (47.82)	50 (53.77)	χ^2(2) = 2.95
Part-time	7 (14.89)	13 (28.26)		
Full-time	10 (21.28)	7 (15.22)		
Unknown	2 (4.26)	4 (8.70)	6 (6.45)	
Income (annual)				P = .06
$0–$19,000	33 (70.21)	31 (67.39)	64 (68.82)	
$20,000–$39,000	9 (19.15)	12 (26.09)	21 (22.58)	
$40,000–$59,000	2 (4.26)	2 (4.35)	4 (4.30)	
Unknown	3 (6.38)	1 (2.17)	4 (4.30)	
Nativity status[a]				P < .001
U.S.-born	0 (0)	26 (56.52)	26 (27.96)	
Foreign-born	47 (100)	20 (43.48)	67 (72.04)	
Primary language(s) spoken[a]				P < .001
Primarily English	2 (4.26)	28 (60.87)	30 (32.26)	
Primarily Spanish	43 (91.49)	6 (13.04)	49 (52.69)	
Both English and Spanish	2 (4.26)	10 (21.73)	12 (12.90)	
Unknown	0 (0)	2 (4.35)	2 (2.15)	
Language of study assessments[a]				P < .001
English	2 (4.26)	44 (95.65)	46 (49.46)	
Spanish	45 (95.74)	2 (4.35)	47 (50.54)	
Language(s) spoken in home[a]				P < .001
Primarily English	0 (0)	28 (60.87)	28 (30.11)	
Primarily Spanish	42 (89.36)	7 (15.22)	49 (52.69)	
Both English and Spanish	5 (10.63)	11 (23.91)	16 (17.20)	

* $p < .05$; *** $p < .001$

[a] Validity check of acculturation grouping

completion of a full treatment episode, rather the families having initiated services. Thus, current findings may not contradict Ho et al.'s findings, but instead be in line with McCabe's (2002) suggestion that acculturation may impact initial and ongoing treatment engagement in distinct ways.

Table 3 Frequency of termination type by acculturation and treatment condition

Termination type	Low acculturation ($n = 47$) n (%)	High acculturation ($n = 46$) n (%)	Total ($N = 93$) N (%)
Routine termination	27 (57.44)	16 (34.78)	43 (46.24)
Withdrew from therapy/lost to therapist	10 (21.28)	20 (43.48)	30 (32.26)
Other (e.g., therapist issue)	10 (21.28)	10 (21.74)	20 (21.51)

Despite differences between acculturation groups, no show and family-initiated cancellation rates in this study were still relatively low compared to other studies that have demonstrated missed session rates around 50 % (Donohue et al. 1998; McKay et al. 1996, 1998). This difference suggests that other factors within the current context may have impacted attendance. Future studies may aim to delve deeper into such factors, for instance, therapists' use of engagement-specific strategies.

Several unique features of the study itself add further value to the findings. All participants in the sample were low income Medicaid recipients. Any differences in engagement are not likely attributable to differences in family poverty, which has been previously implicated as a contributor to low treatment engagement (Bui and Takeuchi 1992). Additionally, the study examined a sample seeking treatment for various disorders in a community mental health setting which adds to the generalizability of results beyond a recruited university-based research sample, though more participants received EBTs than those in other community mental health settings, which may have had an impact on the results.

This study has several limitations that temper the findings. First, the current study lacked data on other possible mechanisms that might influence treatment engagement because the primary aim of the larger clinical trial was to examine the effectiveness of various treatment approaches for youth anxiety or trauma, depression, and disruptive behaviors. For example, we did not have measures of endorsement of cultural values, acculturation specific measures, assessment of affinity towards heritage culture, including a bidimensional conceptualization of acculturation. Without this information it is difficult to draw specific conclusions about cultural processes at play. Future research would benefit from closer examination of cultural values, such as *simpatia* and *respeto*, more specifically in relation to ongoing engagement. It is possible, however, that different cultural values may play distinct roles in the engagement process, so it would be important to investigate values both independently and in conjunction with each other to better understand their individual and collective impacts on specific engagement outcomes, such as attitudes toward treatment or in-session participation. Additionally, a bidimensional approach may elicit more

nuanced patterns of engagement. As in Ho et al.'s (2007) study, acculturation to mainstream culture may impact a specific piece of engagement, such as ability to ask questions of providers who do not speak Spanish, while maintenance of traditional values might affect other aspects, such as viewing providers as authority figures and, thus, being more willing to follow through on recommendations. Still, while researchers should make an effort to understand processes underlying acculturation, proxy demographic indicators, especially in conjunction, may be useful in identifying groups of similarly acculturated individuals (Alegria 2009; Cruz et al. 2008) when such measures are unavailable. Indicators of life stressors were also not included in analyses for the current sample. Research has shown that the presence of psychosocial stressors and crises are predictive of dropout (see Gopalan et al. 2010). However, in the larger study sample, crises were not predictive of dropout (Korathu-Larson et al. 2012). Except treatment satisfaction, measures of cognitive engagement (Staudt 2007) and of therapeutic alliance were absent for this sample, again due to scope of the larger clinical trial. Thus, we are unable to more specifically discuss underlying cognitive and relationship processes that may contribute to behavioral indicators of engagement.

A second limitation is that we do not know how agencies decided to match clients with specific therapists. It could be that some families with perceived need by the agencies were systematically assigned to specific therapists with a particular skillset or abilities to engage these families (e.g., similar ethnic or cultural background, immigration history, or language match). This type of therapist match may influence the level of therapeutic alliance and, thus, treatment attendance and completion (Halliday-Boykins et al. 2005; Wintersteen et al. 2005). Additionally, we lack of knowledge of therapists' role in engaging families in this study. In addition to therapists of similar backgrounds being able to address stressors associated with immigration and acculturation, they may also systematically be making decisions about treatment delivery that may influence both engagement and quality of treatment. Such decisions may encompass selection of therapeutic practices that may be more amenable to less acculturated families or using engagement-specific practices with greater intensity. Future research may examine engagement

from therapists' perspectives in light of their knowledge about specific characteristics of the families to provide a more holistic view of the engagement process.

Third, the study was framed in an exploratory manner and therefore lacked directional a priori hypotheses regarding the impact of acculturation on treatment engagement given the equivocal nature of extant literature. Fourth, in trying to examine caregiver versus child attendance, we did not have data on expected session participant prior to each session. Therefore, we were limited to examining this potential effect by comparing typically caregiver-focused interventions, as for disruptive behavior problems, versus child-focused interventions, like those for depression and anxiety. It is possible that some caregiver-focused interventions had child session and vice versa.

Despite these limitations, results of the current study underscore the importance of looking beyond race/ethnicity to more specific characteristics, such as caregiver acculturation, when considering ongoing treatment engagement. Increasing therapists' awareness of predictors of low engagement, such as an ethnic minority family's greater assimilation to U.S. culture, and equipping them to systematically assess for engagement problems may inform therapists as to when increased efforts towards engaging families may be necessary.

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