

## Prevention and Intervention Research With Latino Families: A Translational Approach

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### **Abstract:**

The present paper takes a translational approach in applying the themes of the current special section to prevention and intervention science in Latino families. The paper reviews the current literature on cultural processes in prevention and intervention research with Latino families. Overall, many prevention and intervention programs have either been developed specifically for Latino families or have been modified for Latino families with great attention paid to the socio-cultural needs of these families. Nevertheless, few studies have tested the role of cultural values or acculturation processes on outcomes. We make recommendations based on findings within basic science and in particular this special section on the incorporation of these values and processes into prevention and intervention science with Latino families.

En el presente artículo se utiliza un enfoque traslacional para aplicar los temas de la sección especial actual (Updegraff & Umaña-Taylor, esta edición) a la ciencia de la prevención y la intervención en las familias latinas. En el artículo se repasa la bibliografía actual sobre los procesos culturales en la investigación sobre prevención e intervención con las familias latinas. En general, se han desarrollado numerosos programas de prevención e intervención específicamente para familias latinas o se han modificado para ellas prestando atención a las necesidades socioculturales de estas familias. Sin embargo, pocos estudios han evaluado cómo influyen los valores culturales o los procesos de aculturación en los resultados. Hacemos recomendaciones sobre la base de hallazgos obtenidos dentro de la ciencia básica y en particular en esta sección especial acerca de la incorporación de estos valores y procesos en la ciencia de la prevención y la intervención con las familias latinas.

本文采用一个翻译学的方法将该期特殊章节的主题(本期Updegraff & Umaña-Taylor)应用于拉丁裔家庭预防和干预科学。本文回顾了当前在拉丁裔家庭预防和干预文化过程方面的文献。总体来说,很多针对拉丁裔家庭的预防和干预项目已经发展起来,还有一些项目针对拉

丁裔家庭做出调整并特别关注这些家庭的社会文化需求。然而,很少有研究测试文化价值或文化移入过程对结果的影响。我们在基础科学研究发现的基础上,特别是在将这些价值和过程纳入拉丁裔家庭预防和干预科学的基础上提出建议。

**Keywords:** Latino | Acculturation | Cultural values | Interventions | Families Latinas | Intervención | Prevención | 拉丁裔,干预 | 预防

### Article:

As the Latino population in the United States continues to grow, research needs to consider how to best serve the needs of this vibrant and diverse community. Much attention has been paid in the literature to the importance of culturally grounding prevention and intervention efforts by describing the pertinent socio-cultural factors that need to be considered in delivering effective services for Latinos (e.g., Bernal, Bonilla, & Bellido, 1995). This call to arms resulted in a multitude of interventions that have been developed specifically for Latino families (e.g., Gonzales et al., 2012) or that have tailored existing interventions to meet the unique socio-cultural needs of this group (e.g., McCabe & Yeh, 2009). While there is a healthy debate about how treatment and intervention research should empirically test cultural adaptations with various cultural groups (e.g., Bernal, Jiménez-Chafey, & Domenech Rodríguez, 2009; Castro, Barrera, & Steiker, 2010; Kazdin & Wassell, 2000), this paper will instead focus on how basic research on cultural and family processes in Latino families can guide future research questions within prevention and intervention science that test the complexity and nuances inherent in the study of specific cultural groups.

The papers in this special section highlight the increasingly multifaceted ways to understand the impact of culture on Latino family processes, and how newer statistical techniques are leveraged to further this understanding. In particular, we can take away from these papers: (1) the need to examine the effects of specific cultural values (Pérez-Brena, Updegraff, Umaña-Taylor, Jahromi, & Guimond, 2014; *Paper A*); (2) the importance of unpacking the effects of acculturation variables (e.g., language, generation status) especially across different family members (Toomey, Updegraff, Umaña-Taylor, & Jahromi, 2014); (3) the importance of modeling culture at the family level with attention paid to how changes in one member of a family may impact the cultural attitudes and beliefs of other family members (Pérez-Brena, Updegraff, & Umaña-Taylor, 2014; *Paper B*; Toomey et al., 2014); and (4) how the intersection of gender and cultural processes needs to be better understood (Killoren, Wheeler, Updegraff, Rodríguez, & McHale, 2015; Pérez-Brena et al., 2014; *Paper B*; Toomey et al., 2014). Taking these themes into consideration, we examined past empirical research on prevention and intervention with Latino families to identify potential avenues for future research that will provide the field with a richer understanding of cultural processes within intervention research. Given the papers in this special section, we focused on empirical prevention and intervention programs targeting Latino families that either involved multiple family members in the program, or targeted one family member (i.e., parent) with the effort of impacting the outcomes of another family member (i.e., child).

Although this special section focused on Mexican-origin youth, we extended our literature search more broadly to include Latinos as few intervention and prevention efforts included solely Mexican-origin youth. We acknowledge that specifying processes for Latinos from different countries of origin is important as there is significant variability across the Latino populations in the United States. For example, among a host of differences, Latinos vary on immigration patterns (Knight, Roosa, & Umaña-Taylor, 2009), composition and structure of the home (Updegraff & Umaña-Taylor, 2015), socio-economic status (Lopez, Gonzalez-Barrera, & Cuddington, 2013), nativity status (Lopez et al., 2013), the protective effects of cultural value endorsement (Calzada, Huang, Linares-Torres, Singh, & Brotman, 2014), experiences of discrimination (Pérez, Fortuna, & Alegría, 2008), and epidemiological risk for mental health and substance use problems (Alegría et al., 2007). To best understand how culturally relevant processes are implicated in prevention and intervention research, we argue that many of these factors (i.e., acculturation, cultural value endorsement) need to be empirically examined as potential moderators or mediators of treatment. Given that Latinos may vary on these factors, future research needs to examine how treatment functions across different national origins with special attention paid to measurement of the unique socio-demographic and cultural experiences of each group. In other words, this work should not simply examine whether differences exist in treatment processes across different countries of origin (e.g., Mexican-origin youth vs. Cuban-origin youth), but should attempt to test the underlying mechanisms that would explain the differences (e.g., immigration status, ethnic enclaves, cultural value orientation).

Overall, there has been some important growth in the Latino family prevention and intervention literature in the past 15 years. Before 2000, there had been only a handful of interventions that had tested the efficacy of treatments specifically within Latino populations (e.g., Miranda et al., 2005; Rosello & Bernal, 1996; Szapocznik et al., 1986). Highlighting the paucity of research at this time, the Division 12 American Psychological Association Task Force on Promotion and Dissemination on Psychological Processes concluded that no treatment interventions specific to any ethnic minority community met the rigorous efficacy criteria set forth by the committee for a well-established treatment (Chambless & Hollon, 1998). Due to such a drastic lack of representation of ethnic minorities in intervention research, there was increased attention paid to the importance of culturally situating evidence-based treatments for ethnic minority populations (e.g., Bernal & Scharrón-del-Rio, 2001; Hall, 2001) that subsequently resulted in greater empirical examinations of treatments within ethnic groups.

In our review of the literature, we located 24 different studies conducted since 2000 that have tested family-based intervention or prevention programs in Latino families targeting either mental health or substance use. The majority of these studies can be classified as either modifications of parenting interventions with children and adolescents (e.g., Ceballos & Bratton, 2010; Dumas, Arriaga, Begle, & Longoria, 2011; Martinez & Eddy, 2005; Matos, Torres, Santiago, Jurado, & Rodríguez, 2006; McCabe & Yeh, 2009) or multifamily prevention programs that have been developed specifically for Latinos (e.g., Gonzales et al., 2012; Pantin et al., 2003; Smokowski & Bacallo, 2009; Williams, Ayers, Garvey, Marsiglia, & Castro, 2012). A few studies have focused on modifications or the development of clinical interventions for child or adolescent psychopathology (e.g., Rosselló, Bernal, & Rivera-Medina, 2012; Piña, Zerr,

Villalta, & Gonzales, 2012; Santiago, Lennon, Fuller, Brewer, & Kataoka, 2014) or parental psychopathology (e.g., D'Angelo et al., 2009; Valdez, Cepeda, Parrish, Horowitz, & Kaplan, 2013), and a few studies have focused on family therapy with Latinos (e.g., Santisteban & Mena, 2009; Santisteban, Mena, & Abalo, 2013; Santisteban et al., 2003). These studies have been conducted across the United States (e.g., Southwest: Gonzales et al., 2012; Valdez et al., 2013; South Florida: Pantin et al., 2003; Midwest: Santiago et al., 2014; Northwest: Martinez & Eddy, 2005) and with Latinos from a variety of countries of origin (e.g., Mexican-origin: Gonzales et al., 2012; Valdez et al., 2013; McCabe & Yeh, 2009; prominently Cuban: Santisteban et al., 2003).

Although this increase in research activity is notable compared to the dearth of studies prior to 2000, the amount of family-based prevention and intervention research does not yet reflect the fact that Latinos account for 16.7% of the U.S. population and over half of the nation's growth from the years 2000 to 2011 (Pew Hispanic Center, 2011). Nevertheless, across these studies, researchers have generally found positive effects of these interventions on child/adolescent outcomes, parenting processes, and family processes compared to inactive or control conditions, underscoring that these culturally grounded interventions are effective for Latino populations. While the developers of these programs discuss at length and with great detail their efforts at culturally modifying or situating their interventions, remarkably few studies have actually examined how cultural factors impacted treatment processes or outcomes. Thus, translating basic research findings on cultural processes to the science of prevention and intervention can provide a rich trove of research questions that can further our understanding of Latino families.

### **Cultural Value Endorsement**

The majority of family-based prevention and intervention studies in Latino populations have examined program effects on a variety of child, parental, and familial outcomes, but few studies have examined the effects these interventions have on culturally influenced values or behaviors even though these studies have been extensively grounded in these values. These interventions have been proven effective at improving child psychological and behavioral functioning (i.e., internalizing and externalizing symptoms, substance use), increasing effective parenting (e.g., effective parenting, harsh parenting, monitoring, parental efficacy), and improving familial functioning (parent-child communication, cohesion) (e.g., Gonzales et al., 2012; Pantin et al., 2003; Santisteban et al., 2003; Wong, Gonzales, Montaña, Dumka, & Millsap, 2014). While establishing the efficacy of these interventions on such outcomes is paramount, additional examination of how these programs influence values like familism (i.e., familial support, obligations, and referent for behavior; Knight et al., 2010) and respeto (i.e., filial obedience and decorum in a family hierarchy; Calzada, Basil, & Fernandez, 2013) is warranted, as these values have generally been found to be associated with positive family and individual psychosocial outcomes (Stein et al., 2014). Moreover, many of these interventions either take advantage of these values as facilitators of the intervention (e.g., Piña et al., 2012), specifically target family mechanisms consistent with these values (e.g., Pantin et al., 2003, 2009), or attempt to increase the values within the intervention (e.g., Smokowski & Bacallao, 2009).

However, only one intervention we located examined cultural values or practices as a specific outcome. One set of studies tested whether the addition of a family component to a school-based intervention for trauma exposure (Cognitive Behavioral Intervention for Trauma in Schools; CBITS) led to additional benefits on child and parental outcomes (Santiago et al., 2013; Santiago et al., 2014). In an effort to curtail the effects of trauma exposure, the study aimed to improve child psychological functioning and coping as well as family-based coping and parenting. In addition, the authors examined whether the family component increased parental familism operationalized by behavioral indicators of family pride and closeness. This quasi-experimental study was conducted in three primarily Latino urban schools, and students and their parents were invited to participate if the student endorsed exposure to community violence and moderate to severe posttraumatic stress symptoms on a screening measure administered by the school. The sample across both the pilot and follow-up study was predominantly immigrant Latino (over 90% of parents were Latino; 80% were immigrants from multiple countries of origin; 70% did not graduate from high school). Parents in the pilot study who participated in the additional 6–8 hour parent intervention reported significant increases in their reports of familism at posttreatment compared to parents who did not participate in the parent intervention (Santiago et al., 2014). In the follow-up study, changes in parental familism for the parents in the parent group compared to those who did participate in the group approached significance (Santiago et al., 2014). Although increasing familism was not a specific goal described in the intervention as it targeted family processes and parenting more broadly, the parent and family group sessions conducted with primarily immigrant Latina mothers may have served to reinforce familism practices, leading to the increase among participants in the parent group.

This set of studies suggests that the further examination of how culturally specific processes, such as familism, are impacted in treatment may be a pertinent line of inquiry. It is important to note that familism is a multidimensional construct. In Santiago et al. (2014), the measure tapped into the behavioral manifestation of familism values in the family rather than the parent's own personal familism values. For example, sample items include “Family members respect one another” and “We really do trust and confide in each other” (Gil, Wagner, & Vega, 2000). Thus, how family-based intervention influences personal familism value endorsement remains untested. Future research should continue to examine whether interventions in Latino families can actually serve to increase culturally specific values that basic research has identified as protective (e.g., respeto, familism, religiosity). Additionally, special attention needs to be paid to measuring value endorsement (e.g., Children should be obedient) separate from the behavioral manifestation of the value (e.g., My child is obedient) to truly untangle the precise mechanisms at play. Researchers could then examine whether these value changes across different family members underpin behavioral and psychological individual changes, and also test whether these value changes concurrently lead to improved family functioning. If these value changes indeed occur and partially mediate intervention effects, this would further strengthen basic research by documenting the causal role of these values within an experimental design.

Not only can Latino cultural values change as a result of interventions but Latino cultural values can also serve to enhance the effects of intervention. Another line of inquiry on how cultural mechanisms influence prevention and treatment efforts should focus on moderational effects of

Latino cultural values, with a special focus on identifying their role in promoting change on individual and family-based processes that are consonant with these values. Interventions that target family processes may be particularly powerful when family members endorse these familial values and are more entrenched in Latino culture. Although this particular set of questions has not been examined in the current literature, findings on treatment engagement in the Puentes/Bridges intervention suggest this undertaking may be fruitful (Dillman Carpentier et al., 2007). The Puentes/Bridges intervention is a broad-based prevention program developed specifically for Mexican-origin youth and their families targeting adolescent, parent, and familial processes prior to the transition to high school (Gonzales et al., 2012). An examination of families who engaged in the intervention suggested that child reported familism values predicted attendance in the family groups only for Spanish-speaking families (Dillman Carpentier et al., 2007). Extending this finding to prevention and intervention effects, values like familism and respeto that are cultural scripts pertaining to family functioning and parent–child relationship factors may serve as an important facilitator of interventions that target family functioning. In fact, these interventions can be understood as helping parents and their children behave in a manner consistent with their deep-rooted cultural values (e.g., positive family functioning, obedience, behavioral compliance), and as such, how these values influence outcomes would be important to consider as a potential test of the utility of culturally tailoring interventions to fit the unique socio-cultural demands of Latinos. If indeed, familial cultural values serve to facilitate intervention effects, it would suggest that interventions should make the links between the cultural values and targeted mechanisms explicit.

Given the laudable efforts to culturally ground and modify interventions for Latino families, the next step for this line of inquiry will be to examine how Latino cultural values function in these prevention and intervention efforts. These values may serve two important roles: as *outcomes* and as *moderators*. As an *outcome*, it may be that for those parents and children who start these programs with lower levels of these values, these group-based interventions with other Latino families and/or Latino therapists serve as a socializing influence reinforcing these cultural values. These socializing effects may be more likely to occur in group-based interventions as families provide each other culturally consonant feedback, and where the skills will be interpreted and discussed through this cultural lens by the group members. Similarly, in individual/family therapy, this socialization may take place when there is an ethnic-match between the therapist and family as the therapist may situate the intervention in that same manner. Although this question has not been specifically tested, research suggests that therapist–patient ethnic concordance predicts better treatment outcomes for Latino clients (e.g., Flicker, Waldron, Turner, Brody, & Hops, 2008), which may be in part due to the delivery of the intervention in a more culturally consonant manner. Across both group and individual/family approaches, the increase in these values may also be more likely when the intervention focuses on the family processes central to these values (e.g., improving parent–child communication, increasing cohesion) than when the intervention is more individually focused (e.g., exposure treatment). Finally, the family-based processes (e.g., increasing compliance, improving communication) targeted in these interventions also may serve to strengthen these values, thereby increasing their endorsement.

As a *moderator*, these values will be important to consider as potentially enhancing the effects of the intervention, particularly for those families whose endorsement of these values are high prior to commencing treatment. Importantly, as the studies in this special section demonstrate, the values should be considered separately to examine whether specific values (e.g., obedience vs. family support) are more critical to target or incorporate into treatment. An alternate approach could be to identify latent classes of cultural value endorsement at the start of treatment and test differential treatment effects based on class membership. Although this approach has not been used for cultural values, latent class identification of risk status prior to initiating a prevention program proved effective in understanding how risk status impacted treatment outcome in the Familias Unidas prevention studies conducted with Latino families (Prado et al., 2013).

### **Further Unpacking Acculturation**

The impact of acculturation variables has also begun to be examined in prevention and intervention research with Latino families. Acculturation is a multifaceted construct that can be described as the continual changes in value endorsement, identity processes, and behavioral engagement associated with contact between multiple cultural groups (Schwartz et al., 2010). As such, endorsement of familial cultural values discussed above is considered part of the acculturative process, but for this section of the paper, we will more fully consider other aspects of acculturation typically studied in basic science research, including immigrant status (e.g., foreign-born vs. native-born Latinos) and language use, which are typically used as proxy variables for the more complex acculturative process as well as behavioral engagement in Latino culture versus mainstream U.S. culture. Two studies have found that immigrant and Spanish-speaking Latino families more easily engage in these intervention efforts (e.g., Dillman Carpentier et al., 2007) and demonstrate better attendance (Dillman Carpentier et al., 2007; Lakes et al., 2009). Moreover, although the Puentes/Bridges intervention demonstrated effects for parenting and adolescent outcomes at the 1-year follow-up for both Spanish- and English-speaking samples, there were broader mediational effects on school engagement, coping, and maternal harsh parenting for the Spanish-speaking families in the intervention compared to those who participated in the English-speaking groups (Gonzales et al., 2012).

This set of studies suggests that less acculturated, immigrant Latino families may respond better to treatment. The authors of the Puentes/Bridges intervention argued that perhaps the culturally relevant intervention resonated more with less acculturated Latinos compared to their more acculturated counterparts (Gonzales et al., 2012). Others have argued that less acculturated Latinos may more easily engage and benefit in treatment due to a dearth of Spanish-services available to them (Dillman Carpentier et al., 2007). However, these effects may also be understood within the immigrant paradox as it appears that immigrant Latinos (who are more likely to speak primarily Spanish and be less acculturated) may fare better in engaging in and benefiting from treatment than native-born Latinos. If this is the case, similar explanatory mechanisms may be at play that provide immigrant Latinos with more optimal outcomes (e.g., immigrant optimism; cultural connection), and suggest that interventions for more acculturated, primarily English-speaking Latinos may need to target distinct mechanisms (i.e., exposure to discrimination) (Garcia Coll et al., 2012). In other words, perhaps the mechanisms of action in

these interventions may depend on the acculturation level of the family. While some mechanisms may operate similarly across acculturation levels, others may be more pertinent for more acculturated Latino families. This notion is supported by the fact that in the Puentes/Bridges intervention some mediating mechanisms did in fact operate similarly across different levels of acculturation. For example, intervention effects demonstrated similar reductions in mother–child conflict across different levels of acculturation and these reductions resulted in fewer internalizing and externalizing symptoms (Jensen et al., 2014). Yet, in this same study, there was still a main effect of acculturation on these outcomes suggesting other processes may need to be considered for more acculturated families to best target these outcomes.

On the other hand, two studies demonstrated improved outcomes for U.S.-born Latino adolescents compared to foreign-born youth in family-based programs: Familias Unidas (Cordova, Huang, Pantin, & Prado, 2012) and Parent Management Training (PMT: Martinez & Eddy, 2005). Similar to Bridges/Puentes prevention program described above, Familias Unidas is a family-based prevention program developed specifically for the Latino middle school families, but unlike Puentes/Bridges, it more narrowly focused on substance use prevention. In secondary analyses of intervention effects on youth outcomes, using growth curve analyses of their intervention effects, U.S.-born youth demonstrated intervention effects on alcohol use compared to the control condition, but there was no intervention effect for foreign-born youth. Additionally, intervention effects on parental peer monitoring were also only significant for U.S.-born youth. The differential effects of nativity in this intervention compared to Bridges/Puentes are most likely due to the fact that in the Familias Unidas sample native-born youth were likely living with immigrant parents (although it was not reported in the current sample, a previous sample testing the same intervention in a similar context setting reported 94% of parents were foreign-born; Pantin et al., 2003), whereas in the Bridges/Puentes sample only 18% of mothers in their English groups were foreign-born as compared to 97% in the Spanish groups (Gonzales et al., 2012). Thus, the Familias Unidas findings suggest that native-born youth *within immigrant families* may fare better than foreign-born youth within these same families while the Bridges/Puentes findings suggest that on the whole the intervention was more effective with *immigrant parents* compared to *mostly acculturated native-born parents*. A similar interpretation can be applied to the results of a modification of PMT for immigrant families. In terms of PMT, in their sample of 100% immigrant mothers and their adolescents, youth nativity status moderated the intervention effects on parenting variables (skill encouragement and discipline) such that parents of native-born youth appeared to gain more parenting skills in the intervention condition compared to the control, but the authors concluded that this effect was due to the fact that parents of foreign-born youth demonstrated some improvement in the control condition minimizing the effect compared to foreign-born youth in the PMT condition (Martinez & Eddy, 2005). Additionally, both PMT and Familias Unidas were more focused on working primarily with parents, while Puentes/Bridges targeted parents and adolescents through multifamily groups. As such, it may be that native-born youth and their families benefit more from the specific parenting interventions while foreign-born parents and their families benefit from a more broad-based intervention that includes both parents and adolescents. Dismantling studies examining this very question across different levels of acculturation would be necessary to truly understand how acculturation impacts these mediating processes.



This complex set of findings highlights the fact that much more work is needed. In fact, the effect of these acculturation variables has primarily been tested in these large prevention trials, and the effects of nativity status and language have not been explored as fully in intervention studies (e.g., McCabe & Yeh, 2009; Valdez et al., 2013). In a recent examination of a culturally responsive, cognitive behavioral intervention for anxiety, Piña and colleagues (2012) found that Spanish-language delivery of the intervention did not moderate the efficacy of the intervention. However, this sample included about 40% non-Latino, White English-speaking families, and because the authors did not report whether language moderated the treatment within the Latino sample, it is difficult to draw precise conclusions. Additionally, many of the treatment studies have been conducted in Puerto Rico, limiting the ability to examine how acculturation processes impact treatment response (e.g., Matos et al., 2006; Rosello & Bernal, 1996; Rosello et al., 2008). Intervention research should consider how acculturation factors like nativity status and language use influence mediators of treatment and treatment outcomes as this information will be helpful to clinicians tailoring treatments to their specific clients. With this information in hand, clinicians can consider the relevance of the intervention to their particular clients.

Another important step in answering how acculturation impacts the effects of prevention and intervention programs is increasing the diversity in the populations where these questions are tested. In our review of the literature, it became clear that although 64% of U.S. Latinos are native-born (Pew Hispanic Center, 2012), the majority of the prevention and intervention research with Latinos has focused on an immigrant or foreign-born parents and their families. For example, in the modifications of the parenting interventions we identified (excluding one study conducted in Puerto Rico; Matos et al., 2006), 76–100% of the parents in the interventions were immigrants with two studies targeting 100% immigrant mothers (Ceballos & Bratton, 2010; Dumas et al., 2011; Martinez & Eddy, 2005; McCabe & Yeh, 2009). Thus, the composition the families in these studies preclude more nuanced tests of acculturation or nativity differences in intervention research. Although some of these studies have variability in child's nativity status, many of these children spent the majority of their lives in the United States and have immigrant parents limiting these tests as well.

Finally, it is important to note that a few interventions have specifically been developed to decrease the acculturative distance between parents and their children, and thus acculturation processes themselves have been targets of these interventions (e.g., *Familias Unidas*: Pantin et al., 2003, 2009; *PMT*: Martinez & Eddy, 2005; *Entre Dos Mundos*: Smokowski & Bacallao, 2009). However, only one study to our knowledge has directly tested whether the intervention indeed impacted acculturation processes. *Entre Dos Mundos* (*Between Two Worlds*) is a multifamily group prevention program developed specifically for Latino immigrant families and their children and aimed at reducing youth violence (Smokowski & Bacallao, 2009). The intervention involved bicultural skills training for youth and their families compared to a nonstructured support group that discussed similar themes of navigating acculturation but did not impose a curriculum. Overall, there were no significant differences on outcomes across groups, but regardless of group assignment, there was significant change from pre- to posttest suggested on outcomes for those families who attended at least four of the eight sessions (did not report percentage of parents who attended this many sessions). Parents who had a high dose of

treatment increased in their bicultural support and bicultural identity integration (i.e., being able to balance both cultures), and their children demonstrated reductions in externalizing symptoms (although mediation was not formally tested). Thus, intervention effects for immigrant families described above may be due to changes in the acculturative trajectories of families, and future work should test how interventions are not just moderated by acculturation but may be important mediators. This line of inquiry should also take into account recent work suggesting that differential acculturation to U.S. norms may not be the most problematic acculturation gap (Telzer, 2011), and therefore, these interventions should also focus on how acculturation in reference to Latino culture is impacted in these efforts as well.

Further work on the function of acculturation within prevention and intervention science is critical as it has implications for the populations for whom these interventions may be most effective. As with the research on cultural values, this work should also consider the acculturative process as an *outcome, mediator, and moderator*. Importantly, acculturation should be examined beyond language use and nativity status, including identity and behavioral acculturative processes as well. For example, little is known about the role of ethnic identity within these interventions. While the larger literature suggests that ethnic identity processes contribute to positive developmental outcomes in youth (Rivas-Drake et al., 2014), only one study to our knowledge examined the role of youth ethnic identity as a predictor of treatment outcome, finding that greater ethnic pride was associated with less alcohol use posttreatment in U.S.-born adolescents (Gil et al., 2004). This finding was limited in that there was no control group, but it suggests that identity processes may be important to consider, particularly for culturally based treatments. Similarly, given recent work highlighting the role of ethnic concentration within neighborhoods as predictive of developmental outcomes in Latino youth (e.g., White, Zeiders, Knight, Roosa, & Tein, 2014), another important direction may be to consider how the broader behavioral acculturative context plays a role in mitigating the effects of interventions.

### **Family Models**

What is most apparent in the papers in this special section is the need to model cultural processes at the family level, and in particular, unraveling complex reciprocal influence across family members that are not just characterized as the parent influencing the child. Consistent with this notion, prevention and intervention researchers gathering data at multiple time-points across different family members are uniquely poised to ask such complex questions. A recent analysis comparing child-focused cognitive behavioral therapy (CBT) to family-based CBT for anxiety disorders in a sample that was comprised of mostly Latino families found that neither treatment was more effective. However, the authors were able to statistically model whether changes in parent variables (parental anxiety, child-reported parenting) impacted later changes in child outcomes (parent and child-rated child's anxiety), or vice-versa (Silverman, Kurtines, Jaccard, & Piña, 2009). Similar to the child driven changes noted in this special section (Pérez-Brena et al., 2014; *Paper B*; Toomey et al., 2014), the authors concluded that changes in the child's anxiety impacted parent variables more than the other way around, even in the family-based CBT condition that targeted the parent variables. Likewise, in a recent secondary analysis on the

Bridges/Puentes intervention, intervention effects of parental depressive symptoms were mediated through reductions in harsh parenting and child's externalizing symptoms (Wong et al., 2014).

Both of these studies confirm that the impact of interventions need to be understood across the family system, but unfortunately, few studies have modeled how the intervention's impact on one individual influences another individual's functioning with the exception of studies examining changes in parenting mediating child outcomes (e.g., Gonzales et al., 2012; Pantin et al., 2009; Prado et al., 2007; Santiago et al., 2014). While examining changes in parenting behaviors on child outcomes is important, research should extend these tests to include how changes on the psychological, emotional, and behavioral functioning of one individual influences changes on other family members as well as broader family functioning (e.g., cohesion). By providing evidence of mediational mechanisms across the family system, these types of tests will help guide the further refinement of these programs as well as help clinicians deliver the interventions to specific families.

Moreover, these tests can also be further extended to cultural processes as well. As discussed above, more work needs to examine how prevention and intervention programs impact cultural values (i.e., familism, respeto) and acculturative processes (i.e., identity, behavioral acculturation), but this work should also consider the impact of these processes at the family level. The articles in this special section suggest that changes in one person's values influence other family members' values (Pérez-Brena et al., 2014; *Paper B*; Toomey et al., 2014), and it would be compelling to test similar processes within a prevention and intervention framework. As suggested by Silverman and colleagues (2009), can treatment impact a child's cultural value endorsement which in turn later predicts parental endorsement? Or, from a treatment perspective, can treatment effects on value endorsement in one individual impact behavioral or psychological outcomes in another member of the family?

## **Gender**

Limited attention has been paid to the effects of gender within intervention and prevention research with Latino families. Yet, as the articles in the current special section highlight, gender is an important backdrop to understand how cultural values and acculturation processes operate in Latino families (Pérez-Brena et al., 2014; *Paper B*; Toomey et al., 2014). Overall, few studies have documented significant gender differences in either treatment outcomes or mediators of treatment based on either child or parent gender. However, few studies actually test child gender differences on treatment outcome, and in terms of parent gender, few studies include more than one parent and primarily include mothers. In one exception, Wong et al. (2014) found that the mediational paths of the intervention effects in the Bridges/Puentes intervention differed for mothers and fathers. Decreases in harsh parenting in the intervention condition were associated with decreases in maternal depressive symptoms 2 years after the intervention, but changes in maternal supportive parenting were not associated with maternal depressive symptoms. On the other hand, for fathers, there was a more complex relationship, such that improvements in paternal supportive parenting were associated with later decreases in child externalizing symptoms and those reductions were associated with fewer depressive symptoms for fathers. The

authors suggest these differential effects are culturally bound as Mexican-origin mothers in their sample tended to demonstrate high levels of maternal support, and for Mexican-origin fathers, parenting processes are not as closely aligned to their individual psychological functioning given gender roles in Latino families. This study exemplifies the need to untangle the complex relations among culture, gender, and family processes to identify how best to deliver interventions in Latino families. But, with the inclusion of traditional gender roles in the current study, the authors could have tested whether these values influenced the complex mediational effects. More research is needed to test how parent and child gender influence treatment outcomes when taking into account cultural processes.

## Summary

In the past 15 years, there has been an increase in the study of prevention and intervention with Latino families, and this culturally grounded work has generally shown significant effects on child, parent, and family outcomes, which is the first step in documenting the importance of culturally informed intervention. This research could be enhanced by applying lessons from basic science with Mexican-origin youth as highlighted in the current special section. Overall, more attention needs to be paid to testing the cultural processes that have been so carefully and thoughtfully integrated into these interventions. In particular, research should focus on how cultural values and acculturative processes are impacted by the intervention, and whether these factors also influence treatment engagement and outcomes for Latino families. These questions should be posed at the family level to best understand how cultural values and acculturative processes influence individual members as well as other members of their families. These types of questions will not only be helpful in identifying whether cultural modifications are necessary but also start to explicate how cultural processes are impacted by treatment (Castro et al., 2010). Additionally, these tests will also further inform basic science as causal conclusions can be drawn from experimental studies. Ultimately, clinicians will benefit from understanding how these cultural processes influence treatment as it will guide the type of information necessary to collect during assessment phases (e.g., cultural values, identity) that will inform the selection of the specific interventions needed to tailor treatment to a particular Latino client and their family.

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