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## Culturally Adapting an Evidence-Based Parenting Intervention for Latino Immigrants: The Need to Integrate Fidelity and Cultural Relevance<sup>1</sup>

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### Abstract

Latinos constitute the largest ethnic minority group in the US. However, the cultural adaptation and dissemination of evidence-based parenting interventions among Latino populations continues to be scarce in spite of extensive research that demonstrates the long-term positive effects of these interventions. The purpose of this article is threefold: (a) justify the importance of cultural adaptation research as a key strategy to disseminate efficacious interventions among Latinos, (b) describe the initial steps of a program of prevention research with Latino immigrants aimed at culturally adapting an evidence-based intervention informed by parent management training (PMT) principles, and (c) discuss implications for advancing cultural adaptation prevention practice and research, based on the initial feasibility and cultural acceptability findings of the current investigation.

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Latinos<sup>2</sup> constitute the largest ethnic minority group in the US (US Census Bureau, 2010). Among Latinos, children and youth are particularly vulnerable to deleterious effects resulting from health and mental health disparities (Flores, Olson, & Tomany-Korman, 2005; Ku & Matani, 2001). For example, with the transition into adolescence, Latino youngsters are more likely to experience suicidal thoughts, depression, anxiety, and school drop-out than their Euro-American counterparts (Baumann, Kuhlberg, & Zayas, 2010; Kataoka et al., 2002). Latino youth are also overrepresented among drug abusing and delinquent adolescents in the US (Pantin et al., 2003; Vega & Gil, 1998). Rather than identifying Latinos as the source of these challenges, health disparities researchers have extensively documented how historical exclusion, discrimination, and oppression have prevented ethnic minorities from accessing culturally relevant interventions that could support the adequate development of diverse children and youth (Castro et al., 2006). For example, although research with Euro-American populations has rigorously demonstrated the positive effects of preventive parenting interventions aimed at reducing child and youth behavioral problems, the cultural adaptation and dissemination of these interventions among Latino populations continues to be seriously limited (Kaminski, Valle, Filene, & Boyle, 2008).

The main objective of this paper is to describe the development of a program of cultural adaptation and prevention research with Latino immigrant parents. Research findings will be presented to illustrate the initial feasibility and cultural acceptability associated with the dissemination of an evidence-based preventive intervention informed by parent management training (PMT) principles. The current study is relevant to the field because there is a dearth of family therapy researchers involved in the rigorous implementation of cultural adaptation studies with low-income ethnic minority populations. Cultural adaptation research also provides an ethical bridge between the large-scale dissemination of evidence-based practices and competent service delivery to ethnic minorities, particularly because diverse populations continue to be overlooked in family therapy research, clinical, and prevention practice (Bernal, 2006; Bernal & Domenech Rodriguez, 2009).

## Cultural Adaptation Research

Cultural adaptation refers to “the systematic modification of an evidence-based treatment (EBT) or intervention protocol to consider language, culture, and context in such a way that is compatible with the client’s cultural patterns, meaning, and values” (Bernal, Jimenez-Chafey & Domenech Rodriguez, 2009, p.362). Cultural adaptation scholars argue that the dissemination of EBTs among ethnic minorities should be preceded by a process of adaptation to increase the cultural relevance of interventions (Bernal, Cumba-Aviles, Saenz-Santiago, 2006; Domenech Rodriguez, Baumann, & Schwartz, 2011; Kumpfer, Alvarado, Smith, & Bellamy, 2002; Smith, Domenech Rodriguez, & Bernal, 2011). Researchers also warn about the risk of disseminating EBTs among diverse populations if such interventions were originally developed according to Euro-American cultural norms and expectations (Calzada, 2010). A lack of cultural fit with target populations can lead to failure to recruit and retain ethnic minorities in evidence-based parenting interventions (Castro et al., 2006).

Empirical research has demonstrated the relevance of culturally adapting mental health interventions for diverse populations (Griner & Smith, 2006; Smith et al., 2011). However, researchers continue to warn about the risks of conducting cultural adaptations without adherence to the core components that have established efficacy for EBTs (Elliot & Mihalic,

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<sup>2</sup>We recognize that the term “Latinos/as” appropriately makes reference to men and women. However, for clarity purposes, we will utilize the term “Latinos” as this term is widely utilized in the literature on Latino populations.

2004; Smith et al., 2011). Scholars argue that modifying the core components of efficacious interventions can risk the capacity of such interventions to produce positive effects on expected outcomes (Chaffin et al., 2004).

### Recent Directions in Cultural Adaptation Research

As the science of implementation and broad dissemination grows, there is a great need to promote cultural adaptation research aimed at achieving treatment efficacy *as well as* cultural relevance (Barker, Cook, & Borrego, 2010). In the most recent meta-analysis of 65 studies using experimental or quasi-experimental methods to test cultural adaptations, Smith and colleagues (2011) found that culturally adapted treatments were more effective than non-adapted treatments ( $d = .46$ , moderate effect size). When the number of adaptations made and the groups targeted were taken into account, more adaptations yielded better results than fewer adaptations, and adaptations targeted to a specific ethnic group were more effective than those that were tailored for a variety of ethnic minority groups. Earlier, Griner and Smith's (2006) meta-analysis on culturally adapted treatments concluded that culturally adapted interventions have positive effects on clients' engagement in therapy, retention, and satisfaction with adapted interventions. These authors acknowledged that critical questions remain unaddressed in research on cultural adaptation. For example, what are the adaptations necessary to implement in order to achieve cultural relevance and treatment efficacy?, What are the most relevant procedures that should be undertaken in any process of cultural adaptation?

The current program of research has been developed in response to existing gaps that have not been addressed in cultural adaptation research. Specifically, we explore the impact of exposing Latino parents to two differentially culturally adapted versions of an existing evidence-based parenting intervention. The short term research goal consists of examining the initial implementation feasibility and cultural acceptability of both adapted interventions. The long term research goal seeks to empirically examine the differential efficacy of these adapted parenting interventions.

### A Program of Cultural Adaptation Research with Latino Immigrant Parents

Parent Management Training-the Oregon model (PMTO<sup>TM</sup>)<sup>3</sup> is a clinical and preventive intervention for families that has been evolving over the course of 40 years. Positive outcomes on youngsters' internalizing and externalizing behaviors as well as parental adjustment have been observed among PMTO recipients at follow-up measurements spanning nine years (Beldavs et al., 2006; Forgatch, Patterson et al. 2009; Patterson, Forgatch, & DeGarmo, 2010).

PMTO was selected for our program of cultural adaptation research because of existing empirical evidence of its fit with values and parenting practices of Latino parents (see Author, 2008; Domenech Rodriguez, 2003; Martinez & Eddy, 2005). For example, according to PMTO principles, parents are the best teachers of their children. This premise resonates with the Latino cultural values of family cohesion (i.e., familismo) and respect (i.e., respeto). In addition, PMTO was developed primarily with low-income and hard to reach populations that faced intense contextual challenges, many of which were similar to the challenges currently experienced by low-income Latino families in the U.S.

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<sup>3</sup>The process of PMTO certification is a lengthy process that can take up to two years. Such a certification must be granted by Implementation Sciences International, Inc (ISII), or a certified implementation site. The PMTO intervention disseminated in this study closely adheres to the core components of the original PMTO intervention. However, because none of the interventionists affiliated with MSU-Extension have been certified in the delivery of the intervention, we refer to the intervention in this study as *PMTO-Informed*.

## Process of Cultural Adaptation

The current program of cultural adaptation research has been implemented according to clearly defined sequential phases. The first phase consisted of the translation and cultural adaptation of the original PMTO curriculum and intervention materials. Next, we established a collaborative program of research with community leaders informed by principles of community-based participatory research (CBPR). This process led to several conversations about mutual research agendas and negotiations to establish co-leadership roles on all research objectives. This step was essential to ensure that the proposed research had a positive impact on the Latino community in Detroit. We also conducted a large qualitative study with Latino immigrant parents to gain a deep understanding of their most relevant life experiences (see Author, 2008). The final phase of the investigation consists of two steps. First, we implemented a pilot study to compare and contrast the initial implementation feasibility and cultural acceptability of two differentially culturally adapted versions of the PMTO intervention. This paper presents these findings. Currently, we are implementing a randomized controlled trial (RCT) to empirically test the differential efficacy of both adapted interventions.

In contrast to other programs of cultural adaptation research that focus exclusively on testing the relevance of adapted materials or interventions, the current program of research has been continuously informed by CBPR principles in order to gradually develop co-ownership of the project by community leaders and researchers. Furthermore, this investigation serves as the foundation of a large-scale implementation program of integrative services research aimed at providing culturally relevant preventive interventions for Latino families.

## Translation and Cultural Adaptation of PMTO Curriculum and Intervention Materials

The initial phase of this program of research was completed by Dr. Domenech-Rodriguez and colleagues with KO1 funding support provided by the National Institute of Mental Health (NIMH). The translation and cultural adaptation of the PMTO curriculum and intervention materials was completed following the tenets of the Ecological Validity Model (EVM; Bernal & Saenz-Santiago, 2006), which indicate that any process of cultural adaptation should impact specific areas of implementation such as linguistic appropriateness of curricula, appropriate methods of intervention delivery, cultural understanding of context, etc. (see Bernal & Saenz-Santiago, 2006). This process of translation and adaptation led to the manual titled “Criando con Amor, Promoviendo Armonia y Superacion” (CAPAS; Raising Children with Love, Promoting Harmony and Self-Improvement) (Domenech Rodriguez, 2008).

**Local Community Context**—The current program of prevention research is being conducted in Detroit, Michigan. A substantial number of Detroit’s residents (30%) live below the poverty line and the city has one of the highest rates of violent crimes in the U.S. (Bynum & McCluskey, 2007). The Latino immigrant population in Detroit is exposed to intense contextual stressors. Approximately 44% of Latino families living in the area earn a combined family income lower than \$35,000 (Center for Urban Studies, 2004). Latino immigrants in Detroit are highly reluctant to participate in community-based interventions due to a long history of exclusion, discrimination, and exploitation (Baumann, Domenech Rodriguez, & Parra-Cardona, 2011). Most recently, fear among Latinos has intensified due to the growing anti-immigration sentiment against Latino immigrants, as well as widespread deportation activities conducted by immigration authorities. Therefore, efforts to offer non-mandatory preventive mental health interventions for Latinos are frequently faced with contextual barriers, including lack of trust from potential participants.

**Community-Based Approach**—Research activities started since 2006 by clearly describing to community partners our belief that a key approach to reducing mental health disparities among Latinos consists of promoting cultural adaptation research. Such efforts demand achieving a balance between the development of highly cultural relevant interventions, as well as maintenance of high fidelity to the core components that produce the efficacy of evidence-based interventions. Community partners considered that these goals were highly relevant to the Latino community in Detroit. They also emphasized the need to define research goals to ensure the long-term sustainability of the project. Thus, we have closely collaborated with community partners throughout the phases of the project to meet these goals. For example, we worked together in the design of the research protocol and study procedures, grant writing, and selection of mental health therapists who have demonstrated a strong commitment towards the local Latino community. Our community partners are *Southwest Solutions*, which is a leading community-based organization offering mental health, literacy, and housing services in Detroit, *Michigan State University-Extension*, and the church of *Holy Redeemer*.

To increase the cultural relevance of the study, we conducted a large qualitative investigation with 83 Latino immigrant parents residing in Detroit to learn about their most relevant life experiences, as well as to culturally inform the adapted interventions (see Author 2008, 2009). These data informed the adaptation of curricula and study procedures.

**Study Design**—The current research design compares and contrasts the impact of two differentially culturally adapted versions of the PMTO preventive intervention. To achieve this goal, we conducted a pilot study with 12 Latino families in which each family participated in one of two differentially culturally-adapted versions of PMTO (CAPAS-Original and CAPAS-Enhanced). Findings from this pilot study are relevant because they provide initial empirical data regarding the implementation feasibility and cultural acceptability associated with differential levels of cultural adaptation. Due to the small sample size of this pilot study ( $N = 24$  parents), the current findings are limited to quantitative and qualitative intervention satisfaction reports. In the study's RCT phase, we will obtain quantitative and qualitative indicators of differential efficacy and cultural relevance and will examine data according to advanced data analytical methods.

**General Description of the Differentially Culturally Adapted Interventions**—The original PMTO intervention has the following main core components and objectives: (a) promote pro-social development in youngsters (i.e., building skills through teaching with encouragement), (b) decrease youngsters' deviant behaviors (i.e., limit setting), (c) assist parents with strategies to provide supervision (i.e., monitoring), (d) help family members negotiate agreements (i.e., problem-solving), and (e) coach parents with new ways of providing loving attention to their children (i.e., positive involvement). The PMTO intervention is implemented in an integrated step-by-step approach with each new topic building upon a previously learned skill. The use of role-plays and behavior modeling is a cornerstone of PMTO in order to maximize active and applied learning.

*CAPAS-Original* is the first culturally adapted version of the PMTO intervention being examined in this study. This adapted intervention consists exclusively of the translated core components of the original PMTO intervention (Domenech Rodriguez, 2008; Forgatch, 1994). The original CAPAS manual was used in a brief 8-session prevention trial with Latino immigrants and did not include sessions on problem solving and monitoring, two core components of PMTO. Sessions on family problem solving and monitoring were translated and refined by research colleagues conducting PMTO implementation in Mexico (Amador Buenabad, Domenech Rodriguez, Baumann, et al. 2011).

The second adapted intervention, identified as *CAPAS-Enhanced*, consists of all the components of the CAPAS-Original curriculum. In addition, the intervention includes two culture-specific sessions aimed at addressing cultural themes that were identified as particularly relevant by participants in the qualitative study. Specifically, parents reported high levels of stress associated with being immigrants such as intense economic difficulties, experiences of racial discrimination in a variety of contexts, work exploitation, and the impossibility of traveling for extended periods of time to their home countries. Latino parents also reported intense stress associated with “learning to live between two worlds.” That is, while parents tend to remain attached to the cultural values and traditions of their countries of origin, they also realize that their children are being directly influenced by the U.S. cultural context which can greatly differ from the cultural contexts in which they were raised. The CAPAS-Enhanced intervention also includes brief reflections associated with the cultural relevance of each core PMTO component.

CAPAS-Original and CAPAS-Enhanced were delivered as preventive interventions. To this end, a screening procedure was implemented to ensure that only families with children exhibiting mild to moderate behavioral problems participated in the study. Families that exceeded the screening criteria were referred to our community partners for mental health services. In addition, participants in both interventions are assisted by an MSU-Extension specialist to address various immigration needs such as accessing health care services and legal representation.

Resembling the original PMTO intervention, both adapted interventions follow manuals with detailed session agendas, objectives, exercises, role-plays, and group process suggestions. The adapted interventions also have booster sessions designed to help parents refine their parenting skills. All sessions include full dinner for participants and their children, as well as childcare services. Table 1 presents the topics covered in each curriculum and the sequence of presentation. Detailed descriptions of the culture-specific sessions can be requested from the first author.

**Participants**—We implemented recruitment strategies that were successful in the exploratory qualitative study. First, community partners identified parents who expressed an interest to participate in parenting interventions. Flyers were posted by our community partners in settings such as churches and mental health offices. Finally, parents who participated in the study provided referrals by word-of-mouth. This recruitment alternative has been a powerful force in other research with Latinos (Domenech Rodriguez, Rodriguez, & Davis, 2006)

A total of 12 two-parent families were recruited for the first phase of this project, (i.e., 12 mothers, 12 fathers). Six families (12 parents) participated in the CAPAS-Original intervention and six families (12 parents) participated in the CAPAS-Enhanced intervention. All couples reported being married at the time of the intervention and were the biological parents of their children. All families in this phase reported a combined annual family income of \$40,000 or less. Families in both interventions reported an average of approximately three children living in the household. Parents' average age in CAPAS-Original was slightly higher ( $M = 39.67$ ,  $SD = 7.08$ ) than parents in CAPAS-Enhanced ( $35.92$  years,  $SD = 5.48$ ). Parents in CAPAS-Original lived in the US slightly longer ( $M = 15.92$ ,  $SD = 6.86$ ) than parents in CAPAS-Enhanced ( $M = 14.83$  years,  $SD = 4.20$ ). Target children's ages for whom the intervention was carried out, ranged from 6 to 9 years old in CAPAS-Original ( $M = 8.00$ ,  $SD = 1.09$ ), and from 6 to 12 years old in CAPAS-Enhanced ( $M = 9.00$ ,  $SD = 2.53$ ). No differences between interventions on the aforementioned demographic characteristics were statistically significant. All parents reported Mexico as their country of origin.



**Screening Procedures**—Because this study consists of delivering a prevention intervention, it was necessary to ensure that children participating in this study did not meet criteria for conduct or oppositional defiant disorder. Thus, we utilized Bird and colleagues' (2001) screening instrument to ensure adequate eligibility of children. These researchers integrated an instrument that permits the identification of conduct disorders and antisocial behaviors according to an ordinal measure of seriousness/severity. The instrument is an ordinal measure and has five levels of severity ranging from less severe symptoms (e.g., talking back to parents) to severe antisocial behaviors (e.g., stealing with confrontation). The validity of this measure has been established with Latino populations (Bird et al., 2001). Children were only eligible to participate in this study if they were categorized in levels 1 or 2 of severity (i.e., low to moderate). For the pilot study, all families originally screened were found eligible to participate.

**Intervention Integrity and Delivery Procedures**—In the pilot phase, a major goal consisted of training the interventionists in the PMTO core components while mastering the delivery within group settings. To this end, two five-day intensive trainings focused on the PMTO intervention were led by the first and second authors, followed by a one day booster training at the completion of the pilot study. Both authors have extensive experience in the PMTO intervention. The first author is working towards becoming a PMTO certified specialist and mentor. The second author is certified as a PMTO Specialist, Coach, and Workshop Leader. Both authors are also training to become reliable raters of PMTO fidelity.

CAPAS-Original and CAPAS-Enhanced were delivered in the building of a local religious organization widely recognized and trusted by the Latino community. Latino parents have consistently reported a strong sense of safety at this location. Two teams were integrated to deliver each adapted intervention. Each team consisted of one master's level mental health clinician from Southwest Solutions, one professional from Michigan State University-Extension, and the first author (Principal Investigator). Including MSU-Extension professionals enhanced the study's success because they are community members and highly trusted by Latino parents. Including clinicians offered participants access to mental health professionals within a professionally recognized, familiar and safe community setting.

The first author co-delivered 90% of all intervention sessions in both intervention conditions. The goals for the active participation of the principal investigator were threefold: (a) enhance the interventionists' PMTO knowledge through active modeling during intervention sessions, (b) provide close support to interventionists as they mastered the skills for delivering the PMTO intervention in a group format, and (c) ensure fidelity to the core components of the original PMTO intervention. This goal was achieved through pre-session coaching as well as guidance during session implementation. The first author was closely supported throughout this process by the third author via video-conferencing. Because the third author is one of the PMTO developers, her coaching ensured fidelity to the original intervention.

**Assessments**—Comprehensive assessments ranged from 2.5 to 3 hours per family. Each assessment consisted of self-reports for relevant treatment outcomes (e.g. child externalizing behaviors, parental depression) and behavioral observations of parent-child interactions to measure quality of parenting practices. For this pilot phase, the goal was to train assessment teams in evaluation protocols and to identify logistic challenges. Thus, these measures and procedures are neither described nor analyzed in this manuscript.

**Measures of Participant Satisfaction**—Three measures assessed satisfaction with the adapted interventions: (a) session satisfaction reports completed weekly, (b) overall

satisfaction with the intervention at completion, and (c) a focus group interview at completion. Focus group interviews were conducted by research assistants who did not participate in the intervention delivery and the interventionists were not present during the interviews. The focus group interview guide is available from the first author. Satisfaction questionnaires measured level of satisfaction according to a Likert scale (1= No at All Satisfied, 2 = Very Little, 3 = Some, 4 = Quite a Lot, 5 = Very Much). These intervention satisfaction questionnaires have been consistently used in PMTO randomized trials (DeGarmo & Forgatch, 2005; Forgatch & DeGarmo, 1999).

## Results

### Quantitative Findings

**Engagement and Retention**—High engagement and retention was achieved in both adapted interventions with 91% of participants attending at least 9 of the 12 curriculum sessions. In CAPAS-Original, four parents attended 12 sessions, six parents completed 11 sessions, and one parent completed 9 and 6 sessions respectively. In CAPAS-Enhanced, five parents attended 12 sessions, three parents completed 11 sessions, one parent attended 10 sessions, two parents completed 9 sessions, and one parent attended 6 sessions. Included in this account are four makeup sessions completed with parents unable to attend the regular group meetings.

Regarding family units, 100% participation was observed by at least one partner attending 9 or more of the curriculum sessions. Of all participating fathers in both interventions, one father (8.33%) completed 6 sessions, two fathers (16.66%) nine sessions, five fathers (41.66%) 11 sessions, and four fathers (33.33%) 12 sessions. With regards to participating mothers, one mother (8.33%) completed 6 sessions, one mother (8.33%) nine sessions, one mother (8.33%) 10 sessions, four mothers (33.33%) 11 sessions, and five mothers (41.66%) 12 sessions.

**Intervention Satisfaction**—Data from weekly session satisfaction reports indicate that parents experienced high levels of satisfaction with both interventions. Weekly satisfaction ratings ranged from 4.24 ( $SD = .595$ ) to 4.53 ( $SD = .328$ ) in CAPAS-Original and from 4.38 ( $SD = .415$ ) to 4.70 ( $SD = .263$ ) in CAPAS-Enhanced. No significant differences were found between interventions on any of the individual sessions focused on PMTO core components. However, a significant difference in overall satisfaction was found between interventions. Specifically, CAPAS-Enhanced showed a slightly higher average satisfaction score ( $M = 4.55$ ,  $SD = .107$ ) than CAPAS-Original ( $M = 4.42$ ,  $SD = .102$ ),  $t(22) = 2.954$ ,  $p < .01$ .

Post-intervention evaluations showed high levels of participant satisfaction in both interventions with regards to usefulness of the intervention, parental use of PMTO skills, usefulness of home practice assignments, perceived improvements in children's behaviors, and teaching abilities of interventionists. No significant differences between interventions were found on any of these variables. Table 3 provides a detailed description of these findings according to each adapted intervention.

### Qualitative Findings

**Common Findings**—Qualitative data were obtained through post-intervention focus group interviews. Due to the small sample size and nature of data collection, a preliminary thematic content review from the data was chosen over more rigorous qualitative approaches (e.g., grounded theory). Although preliminary qualitative findings should be considered tentative, they represent common themes shared by the majority of participants in each interview.



Latino immigrant parents in both interventions expressed high satisfaction with the exposure to PMTO principles and skills. For example, a mother affirmed the following regarding the use of incentive charts as a way of engaging her children in new desired behaviors, “My kids are now doing things that they did not do before. They changed with the incentives. It really surprised me and the charts have helped us a lot.” A parent expanded on the usefulness of this parenting skill:

I used to say to my child, “Do this right now” and I would snap my fingers. Now, I say, “It’s five steps you need to do [behavior chart] and you will win two points... They smile as I motivate them. It’s a big difference. Before, they had a sad face because I was yelling all the time. Now, I use motivation and they smile and follow my directions.

Parents highlighted the importance of practicing how to give good directions to children, as well as to manage emotion regulation. One participant said, “I was able to see all the mistakes we make as parents. We were not giving good directions and our children were not responding like we wanted. We also learned how to control our emotions, which is fundamental.”

Monitoring and supervision was a relevant theme for participants. One mother affirmed, “Reflecting about supervision was very important. We need to know where our children are and who is with them. Their friendships matter a lot too. We need to supervise them at home and outside.” A parent further elaborated on this issue, “I used to monitor our youngest kid but not the oldest. Now, even when we are at home, my husband and I are checking with each other: ‘Where are the kids, what are they doing?’

One participant’s feedback reflects common reactions to exposure to family problem solving techniques, “Learning about problem solving was relevant because children feel that they are important as they share their opinions as we make family decisions.” Solving problems as a family was also perceived to promote positive changes in the family, as one participant said, “We have improved with regards to the quality of time we spend as a family. We are devoting more time to our family and it has had a positive effect on everyone in our family.”

Learning new limit setting skills was particularly relevant for participants. One parent stated:

The way I was educating my children was wrong. I did not hit them but how I punished them was not right... It’s the behaviors you learned as a kid and the domestic violence and hitting that you experienced with your parents...I have tried very hard not to spank my kids, but you grow up with how your parents treated you...I learned about discipline here and I will offer my kids something that is much better....I’m learning how to control myself now. It’s hard but I’m changing.

Mastering emotional regulation was also important for parents. One participant affirmed, “Learning how to discipline my kid has helped me because I can use authority but without hurting them”. A father concurred, “Now I use my authority as a father but with love. Time out is useful because it is a peaceful punishment.”

Participants also reflected about the usefulness of role plays as a learning tool, as one parent expressed, “I liked that group leaders did role plays by playing the roles of parents and children. They gave us clear and precise instructions about role plays and I did not have any questions about how to do them.” One parent further elaborated on these issues:

Role plays was the best part for me. It is something very attractive because they make you feel in that moment the reality as a parent and as a child. They [interventionists] are good actors and it is very real what you end up doing in the role play. I think role plays are excellent because I can see my mistakes.

Finally, participants reflected about how the parenting skills learned in the intervention helped them to find motivation for their future as parents. As one participant affirmed:

We all want a good education for our children but we were on a wrong path by giving bad directions to them, until we realized what we were doing wrong. Our task as parents is just beginning and we're starting to change the habits we had.

**Contrasting Findings**—In contrast to participants in the CAPAS-Original intervention, CAPAS-Enhanced participants clearly emphasized the importance of devoting more time to reflect about cultural themes that are particularly relevant to them. Specifically, parents reported the high relevance of addressing issues associated with being immigrant parents and learning how to become bicultural families. One parent expressed, “We live here but we are Mexicans. Teaching our daughter about our culture is very important to us, so she can know all about the culture in which she was born.”

The feedback shared by one participant reflects a common reaction among parents: I would suggest giving more time to talk about living in this culture. It was very fast what we reviewed on that day [Session on Biculturalism]. Perhaps adding one more class to receiving more orientation about the American culture... I'm not sure about how to help my kid with these issues.

The need to “learn to live between two cultures,” was a major theme shared by participants. As one parent affirmed:

I need to get into my child's culture that is outside of our home, the American culture. I need help so I can understand it better. For example, my kid goes to school with many American children and sometimes he comes home with questions about the Americans that my husband and I don't know how to respond. We need to help our kids being in these two cultures [Latino and American cultures].

Finally, the common and strong expectation among parents to reflect in depth about issues of biculturalism was described by one parent:

I thought that the classes on culture were perfect...It's a tool that can help us as parents to be grounded here in this culture. We need more time to talk about this... These are the main points I'd like to learn: First, to know more about my own Latino culture, and second, how can I raise my kid in the American culture?

## Discussion

### Intervention Fidelity in Cultural Adaptation

The cultural adaptation procedures implemented in this investigation did not alter any of the core components of the original PMTO intervention. The adaptations undertaken in both adapted interventions were primarily centered on the cultural refinement of curricula and intervention materials, as well as revisions of recruitment, data collection, and intervention delivery procedures.

Tentatively, we assume that close adherence to the PMTO intervention was associated with high satisfaction ratings given the overlapping reports across participants in the focus groups. We expect to expand these tests in the RCT phase of this investigation. Nevertheless, these preliminary data indicate the high relevance of continuing to investigate alternatives to retain the core components of original EBTs in cultural adaptation research with Latinos (Bernal, 2006; Domenech Rodriguez et al., 2011).

Participants' satisfaction with the original PMTO core components in both adapted interventions confirms emerging literature indicating that specific parenting skills (e.g.,

consistent discipline, skill encouragement) appear to be equally relevant across cultures (Kaminski et al., 2008). Such emerging data is relevant given the limited availability of culturally relevant EBTs for vulnerable diverse populations in the US (Kazdin, 2008). The development of cross-cultural theories of effective parenting could facilitate the adaptation and dissemination of efficacious parenting programs for Latinos in national and international contexts that desperately need such programs but lack the resources to develop them.

Regarding implementation fidelity, a core premise of the PMTO intervention refers to modeling to parents effective parenting skills rather than confronting them regarding their parenting challenges. This premise appears to be reflected in participants' quotes describing that positive changes in their parenting skills started by "being able to see their mistakes." According to the PMTO intervention, parents are shown effective ways to handle parenting situations and it is expected that by exposing participants to contrasting skills (effective versus ineffective), parents will identify the most appropriate ways to raise their children.

### **The Critical Role of Culture in Cultural Adaptation**

The curricula, supportive materials, and research activities utilized in this study were adapted in order to ensure linguistic and cultural appropriateness, as well as cultural sensitivity in their delivery. In addition, Latino research staff carried out recruitment, assessment, and intervention delivery. These professionals were also well matched on immigration, acculturation, and general stressors (Baumann et al., 2011). Ethnic matching has been identified as a precursor to engagement in research with diverse populations (Castro et al., 2006). Furthermore, the staff experiences as residents of Detroit brought a profound level of understanding to the frequent and intense challenges experienced by Latinos in this context. We consider that placing culture at the core of study procedures contributed towards developing a climate of trust among participants, which translated into high rates of retention, participant satisfaction, and intervention completion.

With regards to culturally focused sessions, participants in the CAPAS-Enhanced intervention expressed high satisfaction resulting from the opportunity to reflect on issues associated with immigration and biculturalism. These parents also consider that it is necessary to devote more time and attention to these cultural themes as they have a profound impact on their daily parenting experiences.

A slight statistically significant difference was found on the overall level of satisfaction between the CAPAS-Original and the CAPAS-Enhanced interventions. Such difference appears to be related to the opportunity that CAPAS-Enhanced participants had to address highly relevant cultural issues. If these findings are confirmed in the RCT phase of this study, it will constitute empirical data indicating that although adherence to the core PMTO components is associated with positive effects in the lives of Latino participants and their children, the role of culture is also essential and should be addressed in adapted interventions in ways that are most relevant to the recipients. Indeed, in other implementations of PMTO such as Parenting Through Change (Forgatch & DeGarmo, 1999) and Marriage and Parenting in Stepfamilies (Forgatch, DeGarmo, & Beldavs, 2005), extensive consideration to contextual stressors (divorce and remarriage respectively) were integrated into the intervention manuals with strong results.

Present findings also confirm the importance of conducting cultural adaptation studies that compare and contrast the impact of differentially adapted interventions. The use of mixed-methodologies in such studies can yield valuable data in the evaluation of participant engagement and intervention outcomes.

The current study has clear limitations. First, the pilot study consisted of a small sample and generalizations from current findings cannot be made regarding the larger Latino population. In addition, no outcome data were reported on quantitative indicators of parenting skills, as well as parental and child adjustment. Finally, qualitative data are exploratory and did not achieve the saturation that is expected in more rigorous qualitative studies.

Despite these limitations, this investigation constitutes one of the first studies aimed at evaluating the impact of differential cultural adaptation. Cultural adaptation scholars have repeatedly highlighted the need for such designs to advance scholarship on cultural adaptation research (e.g., Martinez & Eddy, 2005). In the current study, quantitative findings indicate participants' satisfaction with both adapted interventions, as well as perceived positive effects on parenting practices and children's behaviors. Furthermore, and according to Latino parents' own voices, qualitative data confirmed that culture informs their lives in profound ways and remains at the core of their most relevant parenting experiences (Falicov, 1998).

## References

- Author (2008).
- Author (2009).
- Buenabad, Amador; Domenech Rodriguez, M.; Baumann, N., et al. *CAPAS-Mexico*. Distrito Federal. Mexico: Instituto Nacional de Psiquiatria; 2011.
- Barker CH, Cook KL, Borrego J. Addressing cultural variables in parent training programs with Latino families. *Cognitive and Behavioral Practice*. 2010; 17:157–166.
- Baumann A, Domenech Rodriguez M, Parra-Cardona JR. Community-based applied research with Latino immigrant families: Practice and research according to ethical and social justice principles. *Family Process*. 2011; 50:132–148. [PubMed: 21564057]
- Baumann A, Kuhlberg J, Zayas LH. Familism, Mother-Daughter Mutuality, and Suicide Attempts of Adolescent Latinas. *Journal of Family Psychology*. 2010; 24:616–624. [PubMed: 20954772]
- Beldavs, ZG.; Forgatch, MS.; Patterson, GR.; DeGarmo, DS. Reducing the detrimental effects of divorce: Enhancing the parental competence of single mothers. In: Heinrichs, N.; Haalweg, K.; Dopfner, M., editors. *Strengthening families: Evidence-based approaches to support child mental health*. Munster: Verlag fur Psychotherapie; 2006. p. 143-185.
- Bernal G. Intervention development and cultural adaptation research with diverse families. *Family Process*. 2006; 45:143–151. [PubMed: 16768015]
- Bernal, G.; Cumba-Aviles, E.; Saenz-Santiago, E. Cultural and relational processes in depressed adolescents. In: Beach, S.; Wamboldt, M.; Kaslow, N.; Heyman, R.; First, M., et al., editors. *Relational processes and DSM-IV: Neuroscience, assessment, prevention, and treatment*. Washington, DC: American Psychiatric Association; 2006. p. 211-224.
- Bernal G, Domenech-Rodriguez MM. Advances in Latino family research: Cultural adaptations of evidence-based interventions. *Family Process*. 2009; 48:169–178. [PubMed: 19579903]
- Bernal G, Jimenez-Chafey MI, Domenech-Rodriguez MM. Cultural adaptation of treatments: A resource for considering culture in evidence-based practice. *Professional Psychology: Research and Practice*. 2009; 40:361–368.
- Bernal G, Saenz-Santiago E. Culturally centered psychosocial interventions. *Journal of Community Psychology*. 2006; 34:121–132.
- Bird HR, Canino GJ, Davies M, Zhang H, Ramirez R, Lahey BB. Prevalence and correlates of antisocial behaviors among three ethnic groups. *Journal of Abnormal Child Psychology*. 2001; 29:465–478. [PubMed: 11761281]
- Bynum, TS.; McCluskey, JD. Unpublished final report submitted to the National Institute of Justice. 2007. Strategic approaches to community safety initiative.
- Calzada EJ. Bringing culture into parent training with Latinos. *Cognitive and Behavioral Practice*. 2010; 17:167–175.

- Castro FG, Barrera M, Pantin H, Martinez C, Felix-Ortiz M, Rios R, Lopez VA, Lopez C. Substance abuse prevention intervention research with Hispanic populations. *Drug and Alcohol Dependence*. 2006; 48(Supplement):S29–S42. [PubMed: 16787713]
- Center for Urban Studies. From a child's perspective: Detroit metropolitan census 2000 fact sheet series. 2004. Retrieved on May 1, 2010 from Skillman center for the children Website: <http://www.skillmancenter.culma.wayne.edu>
- Chaffin M, Silovsky JF, Funderburk B, Valle LA, Brestan EV, Balachova T, Jackson S, Lensgraf J, Bonner BL. Parent-child interaction therapy with physically-abusive parents: Efficacy for reducing future abuse reports. *Journal of Consulting and Clinical Psychology*. 2004; 72:500–510. [PubMed: 15279533]
- DeGarmo DS, Forgatch MS. Early development of delinquency within divorced families: Evaluating a randomized preventive intervention trial. *Developmental Science*. 2005; 8:229–239. [PubMed: 15819755]
- Domenech Rodriguez, M. *Criando con Amor: Promoviendo Armonia y Superacion*. Logan, UT: Utah State University; 2008.
- Domenech Rodriguez M, Baumann A, Schwartz A. Cultural adaptation of an empirically supported intervention: From theory to practice in a Latino/a community context. *American Journal of Community Psychology*. 2011; 47:170–186. [PubMed: 21116707]
- Domenech Rodriguez M, Rodriguez J, Davis M. Recruitment of first-generation Latinos in a rural community: The essential nature of personal contact. *Family Process*. 2006; 45:87–100. [PubMed: 16615255]
- Elliot DS, Mihalic S. Issues in disseminating and replicating effective prevention programs. *Prevention Science*. 2004; 5:47–53. [PubMed: 15058912]
- Falicov, CJ. *Latino families in therapy: A guide to multicultural practice*. New York: Guilford; 1998.
- Flores G, Olson L, Tomany-Korman SC. Racial and ethnic disparities in early childhood health and health care. *Pediatrics*. 2005; 115:183–193.
- Forgatch, MS. *Parenting through change: A training manual*. Eugene, OR: Oregon Social Learning Center; 1994.
- Forgatch MS, DeGarmo DS. Parenting Through Change: An effective prevention program for single mothers. *Journal of Consulting and Clinical Psychology*. 1999; 67:711–724. [PubMed: 10535238]
- Forgatch MS, DeGarmo DS, Beldavs ZG. An efficacious theory-based intervention for stepfamilies. *Behavior Therapy*. 2005; 36:357–365. [PubMed: 16718303]
- Forgatch MS, Patterson GR, et al. Testing the Oregon delinquency model with nine-year follow-up of the Oregon Divorce Study. *Development and Psychopathology*. 2009; 21(2):637–660. [PubMed: 19338702]
- Griner D, Smith TB. Culturally adapted mental health interventions: A meta-analytic review. *Psychotherapy: Theory, Research, Practice, Training*. 2006; 43:531–548.
- Kaminski JW, Valle LA, Filene JH, Boyle CL. A meta-analytic review of components associated with parent training program effectiveness. *Journal of Abnormal Child Psychology*. 2008; 36:567–589. [PubMed: 18205039]
- Kataoka SH, Zhang L, Wells KB. Unmet need for mental health care among US children: Variation by ethnicity and insurance status. *The American Journal of Psychiatry*. 2002; 159:1548–1555. [PubMed: 12202276]
- Kazdin AE. Evidence-Based Treatments and Delivery of Psychological Services: Shifting Our Emphases to Increase Impact. *Psychological Services*. 2008; 5:201–215.
- Ku L, Matani S. Left out: Immigrants access to health care and insurance. *Health Affairs*. 2001; 20:247–256. [PubMed: 11194848]
- Kumpfer KL, Alvarado R, Smith P, Bellamy N. Cultural sensitivity and adaptation in family-based prevention interventions. *Prevention Science*. 2002; 3:241–246. [PubMed: 12387558]
- Martinez CR, Eddy JM. Effects of culturally adapted parent management training on Latino youth behavioral health outcomes. *Journal of Consulting and Clinical Psychology*. 2005; 73:841–851. [PubMed: 16287384]

- Pantin H, Coatsworth JD, Feaster DJ, Newman FL, Briones E, Prado G, et al. Familias Unidas: The efficacy of an intervention to promote parental investment in Hispanic immigrant families. *Prevention Science*. 2003; 4:189–201. [PubMed: 12940469]
- Patterson GR, Forgatch MS, DeGarmo DS. Cascading effects following intervention. *Development & Psychopathology*. 2010; 22:949–970. [PubMed: 20883592]
- Smith T, Domenech Rodriguez MM, Bernal G. Culture. *Journal of Clinical Psychology*. 2011; 67:166–175. [PubMed: 21105069]
- United States Census Bureau. USA Quick Facts. 2010. Retrieved February 3, 2011, from <http://quickfacts.census.gov/qfd/states/00000.html>
- Vega, WA.; Gil, AG. Drug use and ethnicity in early adolescence. New York: Plenum; 1998.



**Table 1**

CAPAS-Original and CAPAS-Enhanced Curricula and Sequence of Intervention Delivery.

Session	CAPAS-Original	CAPAS-Enhanced
1	Introduction to PMTO <sup>a</sup>	Being a Latino Immigrant Parent/Introduction to PMTO <sup>c</sup>
2	Giving Good Directions <sup>a</sup>	Giving Good Directions <sup>a</sup>
3	Teaching through Encouragement I <sup>a</sup>	Teaching through Encouragement I <sup>a</sup>
4	Teaching through Encouragement II <sup>a</sup>	Teaching Through Encouragement II <sup>a</sup>
5	Booster Session <sup>b</sup>	Setting Limits I <sup>a</sup>
6	Setting Limits I <sup>a</sup>	Setting Limits II <sup>a</sup>
7	Setting Limits II <sup>a</sup>	Setting Limits III <sup>a</sup>
8	Setting Limits III <sup>a</sup>	Booster Session <sup>b</sup>
9	Booster Session <sup>b</sup>	Problem Solving <sup>a</sup>
10	Problem Solving <sup>a</sup>	Monitoring <sup>a</sup>
11	Monitoring <sup>a</sup>	Parenting Between Two Cultures <sup>c</sup>
12	Celebration Dinner and Focus Group	Celebration Dinner and Focus Group

<sup>a</sup>Core PMTO component;<sup>b</sup>Booster component;<sup>c</sup>Culture-specific sessions developed based on qualitative findings.

**Table 2**

## Participant Demographics Information.

	CAPAS-Original	CAPAS-Enhanced
<b>Family Characteristics</b>		
Participating Families	6	6
Annual Family Income		
\$10,000–20,000	2 (33%)	3 (50%)
\$21,000–30,000	0 (0%)	3 (50%)
\$31,000–40,000	4 (67%)	0 (0%)
Average Number of Children in Household <sup>a</sup>	3.17 (±1.60)	2.83 (±1.17)
Target Children's Age Range <sup>b</sup>	6–9 (M = 8, SD = 1.09)	6–12 (M = 9, SD = 2.53)
<b>Individual Characteristics</b>		
Participating Individuals	12	12
Mothers	6	6
Fathers	6	6
Country of Origin		
Mexico	12	12
Average Parent Age <sup>c</sup>	39.67 (±7.08)	35.92 (±5.48)
Average Years Living in US <sup>d</sup>	15.92 (±6.86)	14.83 (±4.20)

<sup>a</sup>  $t(10) = -0.41, p = .69$

<sup>b</sup>  $t(10) = -0.89, p = .39$

<sup>c</sup>  $t(22) = -1.45, p = .16$

<sup>d</sup>  $t(22) = -0.47, p = .65$

**Table 3**

CAPAS-Original and CAPAS-Enhanced Satisfaction Ratings (Culture-specific and PMTO core components)

Session	CAPAS-Original Intervention Sessions	Average Satisfaction Ratings <sup>a</sup>	CAPAS-Enhanced Intervention Sessions	Average Satisfaction Ratings <sup>a</sup>
	<i>Weekly Satisfaction Ratings</i>			
1	Introduction		<i>Being a Latino Immigrant Parent</i>	4.70
2	Giving Good Directions	4.44	Giving Good Directions	4.57
3	Teaching Through Encouragement I	4.39	Teaching through Encouragement I	4.49
4	Teaching Through Encouragement II	4.41	Teaching through Encouragement II	4.38
5	Booster	4.42	Setting Limits I	4.41
6	Setting Limits I	4.49	Setting Limits II	4.61
7	Setting Limits II	4.29	Setting Limits III	4.57
8	Setting Limits III	4.24	Booster	4.59
9	Booster	4.49	Monitoring	4.49
10	Monitoring	4.53	Problem Solving	4.70
11	Problem Solving	4.53	<i>Parenting Between Two Cultures</i>	4.62
	<i>Average</i>	<b>4.42<sup>c</sup></b>	<i>Average</i>	<b>4.55</b>
	<i>Post-Intervention Satisfaction Ratings</i>			
	Usefulness of the Intervention	4.83	Usefulness of the Intervention	4.92
	Parental Use of PMTO Parenting Skills	4.33	Parental Use of PMTO Parenting Skills	4.42
	Usefulness of Home Practice Assignments	4.83	Usefulness of Home Practice Assignments	4.83
	Positive Changes in Children's Behaviors	4.25	Positive Changes in Children's Behaviors	4.67
	Teaching Abilities of Interventionists	4.92	Teaching Abilities of Interventionists	4.92
	<i>Average</i>	<b>4.63</b>	<i>Average</i>	<b>4.75</b>

<sup>a</sup>Satisfaction ratings based on a 5-point Likert scale (1= No at All Satisfied, 2 = Very Little, 3 = Some, 4 = Quite a Lot, 5 = Very Much)

<sup>b</sup>Culture-specific sessions

<sup>c</sup> $t(22) = 2.954, p < .01$