


# Personalizing Behavioral Parent Training Interventions to Improve Treatment Engagement and Outcomes for Culturally Diverse Families

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Kristen M McCabe <sup>1,2</sup>  
May Yeh<sup>2-4</sup>  
Argero A Zerr<sup>1,5</sup>

<sup>1</sup>Department of Psychological Sciences, University of San Diego, San Diego, CA, USA; <sup>2</sup>Child and Adolescent Services Research Center, San Diego, CA, USA; <sup>3</sup>Department of Psychology, San Diego State University, San Diego, CA, USA; <sup>4</sup>Department of Psychiatry, University of California, San Diego, CA, USA; <sup>5</sup>Department of Psychology, California State University Channel Islands, Camarillo, CA, USA

**Abstract:** Behavioral Parent Training (BPT) interventions are efficacious for young children with externalizing behavior problems. However, not all families benefit, and ethnic minority families in particular are less likely to enroll, engage, and improve in BPT. Versions of BPT interventions tailored for specific ethnic groups have been successful at improving engagement and outcomes for ethnic minorities; however, the specificity of these models presents challenges for broad dissemination. This article presents a personalization approach (PersIn) that utilizes cultural assessment results to tailor treatment protocols to the characteristics of individual families. We believe this approach has the potential to maximize cultural sensitivity while preserving generalizability to both minority and non-minority ethnic groups. We further propose that personalization on Parent Explanatory Model (PEM) parameters that have been found to vary across ethnic groups and to impact treatment engagement and/or outcomes is a promising approach to decreasing disparities in BPTs. We describe examples of evidence-supported PEMs that present good targets for personalization and provide examples from MY PCIT to illustrate how PersIn can be applied to Parent-Child Interaction Therapy (PCIT).

**Keywords:** Behavioral Parent Training, Parent-Child Interaction Therapy, culture, personalization, disruptive behavior disorders

## Introduction

Externalizing behavior disorders, including oppositional defiant disorder (ODD), conduct disorder (CD), and attention deficit hyperactivity disorder (ADHD), are highly prevalent and the most common reason for referral to mental health services for young children.<sup>1-3</sup> Externalizing behavior problems tend to be stable over time and are precursors to a variety of impairing problems later in life, including aggression, criminal behavior, and substance abuse.<sup>4-7</sup> In addition to individual and familial suffering, youth with disruptive behavior disorders are costly to society because of special education needs, criminal justice expenditures, and lost wages.<sup>8-11</sup> The burden of these disorders fall disproportionately on ethnic minority (EM) youth, who are more likely to be diagnosed with disruptive behavior disorders than their non-Hispanic White (NHW) counterparts, and to experience pervasive functional impairments due to those disorders.<sup>12-14</sup>

Behavioral Parent Training (BPT) has proven efficacy for young children's externalizing behavior problems,<sup>15</sup> but its transportability to EM populations is not well established.<sup>16,17</sup> Although the number of BPT interventions that have been

Correspondence: Kristen M McCabe  
Department of Psychological Sciences,  
University of San Diego, 5998 Alcalá Park,  
San Diego, CA 92110, USA  
Tel +1 619 260 4001  
Email kmccabe@sandiego.edu

tested with EM families appears to be increasing, samples still do not reflect the diversity of the US population; Asian American and Latinx families in particular remain underrepresented in parent training studies.<sup>18,19</sup> In addition, many researchers argue that because parenting, the primary target of BPT programs, is highly culturally dependent, such programs may require significant cultural modification to benefit culturally diverse families.<sup>20</sup> On the other hand, there is promising evidence that BPTs can produce similar effect sizes both within and outside their countries of origin; thus, the need for cultural modification of BPTs cannot be assumed.<sup>21,22</sup> Lau<sup>23</sup> argues that a “selective” and “directed” approach be taken to determining when cultural modifications are likely to be beneficial, and describes indicators that, when present, suggest cultural modification is warranted. In such an approach, targets for modification would be indicated by evidence of variability across communities in the contextual processes that affect vulnerability and protective factors and/or in responses to treatment strategies for a particular problem.<sup>23</sup> Using this framework, the need for cultural modification of BPT interventions is supported by evidence of lower engagement, increased treatment completion time and, in some cases, poorer outcomes for EM families.

At least 51% of families identified as in need of BPT drop out before completing treatment,<sup>24</sup> and EM families are at particularly high risk for poor treatment engagement as reflected in lower recruitment rates, less active participation in interventions, and higher rates of treatment drop-out. EM families experience risk factors for early attrition from treatment disproportionately, including socioeconomic disadvantage and parenting stress, and are less likely to have beliefs about the causes of their children’s emotional and behavioral problems that are compatible with treatment seeking and engagement.<sup>25,26</sup> This may partially explain why EM status has been associated with higher attrition in BPT programs. Studies have found lower rates of enrollment<sup>27</sup> and higher rates of dropout<sup>28</sup> of EM families in the Incredible Years (IY) program, high rates of dropout from ParentChild Interaction Therapy (PCIT) among low SES African American families,<sup>29</sup> lower enrollment of immigrant families in a school based BPT program,<sup>30</sup> and higher rates of treatment dropout among EM families in Parent Management Training.<sup>31</sup> Furthermore, African American parents were found to have lower and less active participation than Non-Hispanic Whites (NHWs) in the Fast Track parent-

training program.<sup>32</sup> Thus, the evidence suggests that EM families have faced significant barriers to treatment engagement in BPT interventions.

Length of time to treatment completion is another important indicator of whether EM families are benefiting from treatment equivalently to NHW families.<sup>33</sup> Greater time to completion may indicate greater difficulty mastering concepts and techniques due to either unfamiliarity or poor fit with cultural context. One study found that EM families took longer to complete a BPT intervention,<sup>33</sup> and studies of PCIT with African American, Mexican American, and Puerto Rican families have found that a greater number of sessions or longer sessions were necessary to complete treatment successfully.<sup>29,34–36</sup> Similarly, in a trial of the Incredible Years (IY), therapists reported that Chinese American families required more practice with the skills than did NHW families due to unfamiliarity.<sup>37</sup>

Finally, there is some evidence to suggest that EM families do not benefit from BPT programs to the same extent as NHWs. Relatively few trials have directly compared the outcomes of culturally unmodified BPT for EM families to those of NHWs.<sup>19</sup> Of the studies that have been conducted, a few indicate that EM families benefit similarly to NHW families;<sup>38</sup> however, others have found that EM families fare worse. For example, a demonstration study of the Healthy Steps parent training intervention found that, although all treated parents increased their use of authoritative/inductive discipline initially, by the preschool years, outcomes were moderated by race/ethnicity.<sup>39</sup> Improvements in parenting were seen for NHWs, but decrements in parenting were observed for both African American and Latina mothers compared to controls.<sup>39</sup> Similarly, an evaluation of a parent and teacher intervention for externalizing behaviors found that NHW boys who received the intervention were rated as less aggressive by their teachers compared with controls, whereas no effects were seen for African American boys.<sup>40</sup> The Fast Track parent training intervention also produced smaller improvements in teacher reported aggression for African American children relative to NHWs.<sup>41</sup> Finally, a study of PCIT for African American families found that although child externalizing problems improved significantly relative to controls, parents continued to report high levels of depression and parenting stress post-treatment.<sup>29</sup> Taken together, the evidence generally suggests that EM families are less likely to engage in

BPT, and show slower behavior change and/or poorer outcomes in BPT compared with NHW families.

## Cultural Modification of Evidence-Based Treatments (EBTs) to Improve Engagement and Outcomes for EM Families

One way of addressing poorer engagement and outcomes in psychotherapy for EM families is to develop culturally modified versions of EBTs. Recent meta-analyses suggest that culturally-adapted treatments are generally more effective than unadapted treatments for ethnic minorities.<sup>42</sup> For example, a meta-analysis found that effect sizes favored culturally adapted interventions over other conditions more generally ( $g = 0.67$ ), including when compared to unadapted versions of the same intervention ( $g = 0.52$ ).<sup>43</sup> Similarly, a separate meta-analysis of culturally adapted interventions reported “a moderately strong effect” (average effect size of  $d = 0.50$ ) on a combination of measures reflecting engagement and outcomes across 99 studies, although an estimate accounting for publication bias reduced the effect size ( $d = 0.35$ ).<sup>44</sup> Another meta-analysis found that the number of culturally adapted components was significantly and positively correlated ( $r = 0.28$ ) with treatment effect sizes.<sup>45</sup> Although the literature to date has limitations, these meta-analyses point to generally greater effectiveness of culturally-adapted treatments for EM clients, compared to non-adapted treatments.

Similarly, cultural modification of specific BPTs has shown promise in improving outcomes for EM families.<sup>46</sup> Clinical trials of culturally modified BPTs have found positive outcomes for PCIT,<sup>34,35</sup> Positive Parenting Program (PPP),<sup>47</sup> and Parent Management Training - Oregon Model (PMTO).<sup>46</sup> In fact, a recent meta-analysis examining 18 studies focused upon group-based parent training programs for ethnic minorities reported a small effect of these programs on parenting behavior improvement (Cohen's  $d = 0.30$ ) and child outcomes (Cohen's  $d = 0.13$ ), but indicate that programs containing cultural adaptations, particularly those related to “deep structure sensitivity,” had greater effectiveness in improving parenting behavior (Cohen's  $d = 0.54$ ).<sup>48</sup> Their results also demonstrated that cultural sensitivity was significantly related to improvement in child behavior. Thus, cultural modification appears to have the potential to improve outcomes for EM families.

However, culturally adapted interventions also face significant challenges that slow their dissemination and

adoption. Developers of cultural modifications must attend carefully to “adaptation/fidelity balance.”<sup>49</sup> In one of the few reviews to examine engagement as well as outcomes in BPT, Kumpfer et al<sup>50</sup> reported that while versions of the Strengthening Families Program culturally adapted for four different ethnic groups improved retention up to 40%, it also produced outcomes that were inferior to the standard version due to dilution of the core components of the treatment.<sup>50</sup> This suggests that culturally adapted versions should be as faithful as possible to the original evidence-based treatment (EBT), and modify only those aspects that are necessary to increase the engagement and effectiveness of the intervention.

The specificity of culturally adapted EBTs presents another significant barrier to their adoption. If each EM group or subgroup were to require a different set of modifications for each treatment program, the result would be a large number of treatment versions that would be impractical for clinicians to master.<sup>23,51</sup> Consequently, researchers have recommended deriving principles to guide cultural modification of existing programs rather than developing separate ethnic models.<sup>52,53</sup> Culturally adapted models also run the risk of creating a version of the intervention that is responsive to a “stereotypical” member of a particular group, and care must be taken to accommodate the wide within-group variability found in any ethnic group. Furthermore, families often defy simple cultural categorization. The rapid increase in bicultural and multiethnic youth populations makes approaches that respond flexibly to cultural complexity increasingly desirable.<sup>54</sup> Finally, culture is a “moving target” that is continually evolving over time. Culturally adapted versions that do not remain flexible risk becoming quickly outdated.

## Rationale for Personalizing EBTs to Improve Engagement and Outcomes for EM Families Using the PersIn Approach

One way of addressing these limitations is the development of personalized interventions, which the National Advisory Mental Health Council<sup>16</sup> has defined as treatment that is tailored to respond to “something known about the individual that differentially predicts how he or she will respond to a given treatment.”<sup>16</sup> A personalization approach to interventions that involves a brief, standardized pre-treatment assessment of family cultural characteristics with demonstrated relation to treatment engagement and outcomes, the results

of which would then trigger the deployment of a range of standardized treatment modifications designed to maximize cultural fit for each family, would be an efficient and flexible approach to tailoring BPT for families from a wide range of cultural backgrounds. In this method, called PersIn, a pre-treatment assessment is used to alert therapists to factors that may predict the family's subsequent engagement and program response, and allow them to tailor their intervention strategy early in treatment, when personalization efforts have the greatest likelihood of impact. It also provides clinicians with family-specific information that can decrease reliance on generalizations about cultural groups in the development of treatment plans. Standardized tools to address the identified barriers to engagement can be an efficient way of supporting therapists as they address the needs of an increasingly diverse set of clients. This approach minimizes threats to treatment fidelity by preserving the core features of the treatment to the extent possible, and facilitates dissemination and implementation of the intervention, because clinicians can apply the same basic assessment and treatment approach across a range of cultural groups. Finally, it allows for changes in cultural norms over time.

## Rationale for Personalizing BPT Through Increasing Treatment Match with Parent Explanatory Models

Some have proposed that therapist-client agreement on explanatory models, which include attitudes, beliefs, and expectations about problems, illness course, and treatment, is critical to providing effective care across cultures.<sup>55</sup> It has been hypothesized that “cognitive match,”<sup>56</sup> or client-therapist match on treatment-related constructs, may be more directly influential on treatment outcomes than client-therapist ethnic match.<sup>56</sup> Indeed, client-therapist matches on interpersonally-related problem perception, avoidant coping orientation, or treatment goals were predictive of either session impact or short term treatment outcomes in a sample of Asian American and White adults.<sup>56</sup> In addition, even though adaptation of explanatory models to specific individuals did not necessarily take place, “cultural adaptations of illness myth”<sup>42</sup> or explanatory model was identified as the only moderator of outcomes in a meta-analysis of 19 studies of culturally-adapted therapy for EM clients. In fact, negative parent perceptions of treatment have been found to be an even greater barrier to service utilization than logistical issues.<sup>57</sup> The importance of considering client perspectives

has also been identified by the Institute of Medicine,<sup>58</sup> who describe the need to have “patient-centered” care that “is respectful of and responsive to individual preferences, needs, and values, and ensuring that patient values guide all clinical decisions.”<sup>58</sup> Furthermore, collaboration and agreement on treatment goals are key components of therapeutic alliance,<sup>59</sup> which is associated with therapy outcomes in adults<sup>60</sup> and adolescents.<sup>61</sup> Consideration of client and provider perspectives may be essential to promoting treatment compliance, satisfaction, and outcomes.<sup>62</sup> Due to the essential role of parents in BPT, a strong case can be made that personalizing BPT interventions by improving the match between Parent Explanatory Models (PEMs) and the BPT model delivered to families is likely to facilitate improved engagement, outcomes, and implementation of BPTs for ethnically diverse families. PEM-Treatment match may be maximized by either influencing PEMs or by making modifications to the treatment explanatory model to fit better with PEMs.

## MY PCIT: A Personalized PCIT Program

PCIT is a promising BPT candidate for personalization focused upon improving PEM-treatment match. It is an evidence-based BPT designed for young children with externalizing behavior problems that employs a live coaching model to help parents learn to build warm relationships with their children while setting and consistently enforcing firm limits.<sup>63</sup> PCIT is a good candidate for personalization for a number of reasons. First, it is a manualized intervention with a robust base of empirical support.<sup>64</sup> Second, while PCIT involves core components that are essential to treatment, the PCIT framework emphasizes assessment and individualization of treatment. Thus, it may be relatively seamless to incorporate cultural assessments and the modifications that they trigger into existing PCIT protocols, given careful forethought to retaining fidelity to the core components of PCIT. Third, PCIT has been used successfully with diverse samples<sup>29,35,65,66</sup> including international samples,<sup>21,22,67–70</sup> indicating that the core components of PCIT are transferable to a wide range of groups and cultures. Finally, although PCIT training and supervision includes regular discussion of issues affecting engagement, there is not a system for pre-emptively assessing potential barriers, or for systematically addressing them. We suggest standardizing the assessment of key culturally-influenced factors that may impact engagement and outcomes in



PCIT, as well as providing manualized modifications to treatment, to enhance the ease of tailoring PCIT to address these culturally-influenced factors.

McCabe et al<sup>71</sup> previously developed a culturally modified version of PCIT for Mexican American families called GANA, or *Guiando a Niños Activos* (Guiding Active Children), that incorporated elements of personalization. In addition to culturally modified features of GANA that were standard across all families, a cultural assessment administered at the outset of treatment was used by therapists to tailor aspects of the treatment to the client's particular views. For example, parents were asked to provide information on their conceptualization and beliefs about the causes of their child's problems, the role of extended family members in raising the child, beliefs about discipline, attitudes and expectations for the program, and use of alternative treatments. Treatment was tailored based on parent responses, and these concepts were referenced throughout the program so it could be presented in ways that were congruent with the parents' belief system. A pilot RCT comparing GANA, standard PCIT, and Treatment as Usual (TAU) found that although all three treatments produced significant gains, GANA, but not standard PCIT, significantly outperformed TAU on parent report measures of child symptoms,<sup>35</sup> a pattern of findings that persisted 6–24 months post-treatment.<sup>72</sup> Although significant differences were not found between GANA and standard PCIT on any measures, the effect sizes of the comparisons between those two conditions were consistently in the medium range across parent-report outcome measures, suggesting that significant differences would have been likely with a larger sample size. Although the effects of personalization cannot be separated from the effects of other modifications in this study, the personalization approach may have contributed to improved outcomes in PCIT for Mexican American families.

## The PersIn Approach & MY PCIT

Although these findings are promising, GANA was developed specifically for Mexican American families. To expand this approach to clients from a wider range of cultural backgrounds, the authors have developed PersIn, a method of personalizing treatments by identifying factors associated with treatment engagement and response, assessing these factors, and supplying therapists with corresponding tools to enhance client-treatment match that are triggered by the assessment. Applying the PersIn

approach to PCIT resulted in a personalized version called MY PCIT.

First, we identified PEM personalization targets that have the highest likelihood of yielding improved engagement and outcomes for families because they (1) vary within and across cultural groups, (2) are associated with BPT engagement, mechanisms of change, and/or outcomes, and (3) are targetable for treatment recommendations. In our review of the literature, the following parent explanatory model components met these criteria for BPTs: parental treatment expectancies, parental etiological explanations, endorsement of parenting style, and family support for treatment.

Second, a brief set of 11 measurement tools that assess each of these four PEMS is administered via tablet computer at pre-treatment. Whenever possible, we utilized pre-established measures that had previous psychometric support for use with ethnic minority families. Nevertheless, there were some measures that were adapted or specifically created for use with the program, and thus require additional psychometric evaluation. Measures varied in terms of their response format, including likert-scale, true/false and/or a "select all that apply" format. Administration of this assessment took approximately 20–30 mins. In order to reduce therapist burden, the tablet was pre-programmed to automatically score each measure and produce a therapist report. If the scores on each measure were above a certain pre-determined threshold, this would trigger the use of one or more personalization tools. Thresholds for some measures were based on a continuous cutoff, such as a sum or mean, whereas thresholds for other measures were based on rankings or categorical cutoffs. Whenever possible, thresholds were informed by previous research, including research with ethnic minority families; however face validity was used to determine cutpoints where guidance was unavailable. Therefore, additional research will be needed to examine the utility of these cutoffs.

Third, we developed a suite of personalization tools (e.g., informational handouts, videos, personalized labeled praises, and therapist guides) that are triggered for use with each family depending on their scores on the assessment. Therapists receive a report detailing the parents' responses to the assessment and listing the corresponding tools that are likely to be helpful for the particular family. Development of the personalization tools included a multi-step process that involved updating previously used tools,<sup>71</sup> developing new materials, and gathering publicly

available resources. The development, selection, and revision of these tools were informed by qualitative and quantitative feedback from therapists with PCIT experience with EM families as well as consultation with clinical researchers with intervention expertise with African-, Asian- and/or Latinx American families. Each of the personalization tools was reviewed by Dr. Sheila Eyberg, the developer of PCIT, to establish their compatibility with the core principles of PCIT. Approximately half of the personalization tools involved handouts that were developed to be reviewed by the therapist with the client; these handouts included parent-friendly pictures, visuals, text, and/or stories that would assist therapists in highlighting and explaining important points, and were meant to facilitate rather than to replace therapist interaction. Other tools included videos, discussion guides for the therapist, handouts for family members, a newspaper article, testimonials, and a brief manualized engagement intervention. The majority of these personalization tools are designed to be delivered near the beginning of treatment, where initial engagement and acceptability may be most important, however, some tools were designed to be used throughout treatment as relevant and/or at later stages. Family materials were available in English and in Spanish.

## Increasing PEM-Treatment Match: The Example of MY PCIT

Below, we describe literature supporting the selection of the following 4 PEMs for BPT personalization: Parental Treatment Expectancies (PTEs), Parental Etiological Explanations (PEE), Endorsement of Parenting Styles (PS), and Family Support for Treatment (FST). We then provide examples of how MY PCIT addresses these PEMs using personalized tools.

### Parental Treatment Expectancies (PTEs)

PTEs are “anticipatory beliefs that clients bring to treatment and can encompass beliefs about procedures, outcomes, therapists or any other facet of the intervention and its delivery.”<sup>73</sup> The two primary types described in the literature are outcome expectancies, which represent “prognostic beliefs and feelings about a treatment’s personal efficacy,” and role expectations, which reflect “beliefs about what will transpire during therapy, including how the client and their therapist will behave”.<sup>74</sup> A third, related construct is parent motivation for treatment, which includes a parent’s recognition of the problem, readiness to make changes in his/her own behavior,

program related attitudes, and self-efficacy.<sup>75</sup> A number of studies indicate that EM families are more likely to have negative outcome expectancies and inaccurate role expectancies upon entry into therapy in general, and BPT in particular, compared with NHWs. For example, EM status contributed significant unique variance to parent outcome expectancies upon entry into a BPT program, even after controlling for other variables.<sup>73</sup> Other studies have found that EM status is strongly related to lower perceptions of therapy credibility.<sup>76,77</sup> Furthermore, low SES and EM status are the most consistent predictors of inaccurate role expectancies.<sup>78</sup> Consistent with these findings, some have proposed that lower outcome expectancies and inaccurate role expectancies may help explain poorer engagement and outcomes among EM families.<sup>79</sup>

Negative and inaccurate PTEs are strongly related to engagement and outcomes in psychotherapy generally, and in BPT specifically.<sup>80</sup> Researchers estimate that at least 15% of the improvement in psychotherapy can be attributed to expectancy effects.<sup>81</sup> There is consistent evidence in the child psychotherapy expectancy literature that negative parental treatment expectancies are related to less client improvement, weaker treatment alliance, and greater perceived barriers to treatment.<sup>73</sup> Relatedly, parents’ pre-treatment ratings of treatment credibility and expectancies have been found to predict subsequent adherence to treatment procedures above and beyond demographic variables and parent motivation for treatment.<sup>77</sup> Inaccurate role expectations have been consistently associated with treatment dropout in youth psychotherapy in general<sup>78</sup> and BPT in particular.<sup>82</sup> Therefore, the relationship between treatment expectancies and attrition, adherence, and outcomes is well supported.

The modifiability of PTE via engagement interventions that begin before or early in therapy is also well established. For example, Chacko et al (2009)<sup>83</sup> found that single parents of children with ADHD who were randomly assigned to receive a version of BPT that included an enhanced intake procedure focused on increasing parent understanding and positive expectations of BPT were more likely to attend the first session than families who received standard BPT. Other studies have found that interventions designed to enhance parent motivation have increased treatment engagement in BPT. For example, Nock and Kazdin<sup>84</sup> found that families entering BPT who were randomly assigned to receive a 15 to 45 min intervention delivered across the first, fifth, and seventh sessions that focused on increasing treatment motivation and reducing

barriers had significantly greater parent motivation and treatment attendance, as well as higher parent and therapist reported quality of treatment adherence. In addition, several studies have established the effectiveness of motivational interviewing interventions in increasing treatment participation and outcomes in PCIT.<sup>75,85</sup> Further evidence suggests that the rationales provided for behavioral treatments may be manipulated to increase their acceptability.<sup>86</sup> These findings suggest that assessing client expectancies and motivation as early as possible, and offering targeted interventions to those families with low scores, has the potential to improve engagement and outcomes for both EM and NHW families.<sup>74,79</sup>

The MY PCIT program includes an assessment of outcome expectancies, role expectancies, and parent motivation, and low scores on any of these trigger the implementation of relevant modifications. If parents report poor outcome expectations, therapists present targeted handouts with information about the effectiveness of PCIT, including research results from clinical trials. In addition, parents are shown examples of before and after treatment videos visually demonstrating improvements in parent-child relationships and child compliance. Parents reporting inaccurate role expectations are given a handout with more detailed information about what to expect from the treatment program, along with an informational video to orient them to treatment. Parents who report low motivation are offered Nock & Kazdin's<sup>73</sup> motivational interviewing-based intervention.

### Parental Etiological Explanations

Parental etiological explanations, or beliefs about what caused a child's emotional or behavioral problems, have been found to vary across ethnic groups. For example, a large study of youth in public service sectors found that EM parents of youth with mental health problems were generally less likely to endorse biopsychosocially-oriented etiological explanations than were NHW parents.<sup>26</sup> Because BPT interventions reflect a biopsychosocial model of the development and treatment of child behavior problems, EM families may experience a greater mismatch between parental etiological explanations and BPT. In fact, evidence suggests that less acculturated parents have lower parent-therapist co-endorsement on the cause of their child's problems.<sup>87</sup>

Parental etiological explanations are potentially important to treatment engagement because such beliefs are likely to influence the kinds of interventions parents view

as relevant and effective in addressing their child's problems. Parental etiological explanations involving physical causes and trauma have been found to be associated with greater use of child mental health services approximately two years later, while those involving friends were related to a lower likelihood of mental health service use.<sup>88</sup> In addition, parental etiological explanations related to physical causes have been associated with higher medication usage in youth with ADHD, while those involving sociological causes were associated with lower use.<sup>89</sup> Similarly, mothers who attributed their child's problems to parenting have been found to attend more sessions and to be more likely to complete BPT than parents who feel their child's problems have another cause.<sup>90</sup> In contrast, parents referred for BPT that report low parenting efficacy and attribute their child's behavior problems to internal, global, and stable factors are more likely to never attend BPT.<sup>82</sup>

The finding that EM parents may be less likely to hold etiological beliefs that are compatible with the biopsychosocial treatment model may, at least in part, explain lower BPT engagement for EM families. In fact, a combination of parental etiological explanations has been found to partially explain lower service use among Asian/Pacific Islander American and Latinx families,<sup>88</sup> and higher youth-therapist co-endorsement on etiological explanations predicted better youth treatment engagement.<sup>91</sup> Discrepancies between parent and therapist explanations of child behavior problems have also been associated with nonadherence to BPT.<sup>92</sup> Finally, in a study of a subsample of the Multimodal Treatment Study of Children with ADHD, paternal attributions for child noncompliance due to bad mood and lacking effort were related to worse treatment outcome for medication and behavioral treatment even when accounting for treatment effects.<sup>93</sup> Therefore, increasing the level of match between parent etiological explanations and the treatment rationale has the potential to improve treatment engagement and outcomes in BPT.

MY PCIT personalizes the intervention by determining the parent's primary etiological explanation for their child's behavior problem at pre-treatment, and then providing the family with additional materials that incorporate the parent's beliefs into the treatment rationale if indicated. For example, parents who report that their child's behavior problems are primarily due to trauma review a supplementary family-friendly handout with the therapist that presents research demonstrating the effectiveness of the BPT with such children, and the ways in which the

program meets the needs of children with trauma histories. Parents who feel that their children's problems were caused by exposure to American culture, on the other hand, would receive additional information on how they can use the program to instill and reinforce their family's cultural values.

### Endorsement of Parenting Styles Incompatible with BPT

Parenting practices are designed to promote the competencies necessary for the survival and success of children in a particular cultural context,<sup>94</sup> and cultural groups value a range of child qualities and parenting techniques.<sup>95–97</sup> In particular, Latinx-, African-, and Asian American parents have been found to be more likely to endorse parenting strategies that can be described as authoritarian, which combine low levels of warmth and high levels of firm behavioral control, compared with NHWs.<sup>98</sup> This is significant because change in such parenting behaviors is one of the mechanisms of symptom change in BPT interventions. Harsh parenting in the context of low parental warmth is a primary risk factor for externalizing behavior problems, and by contrast, authoritative parenting (combining high levels of warmth and control) has been found to promote optimal child outcomes.<sup>99,100</sup> Thus, BPT interventions promote parental warmth and consistent discipline to reduce child behavior problems.

Given studies demonstrating that BPT improves child externalizing behavior problems by changing parenting behaviors from authoritarian or permissive to authoritative,<sup>101</sup> it is not surprising that some parenting behaviors that are inconsistent with authoritative parenting predict premature termination and lower likelihood of benefiting from BPT. For example, high levels of adverse parenting practices at pre-treatment have been found to predict premature termination in BPT programs.<sup>76,102</sup> Mothers with more “negative parenting” behaviors (such as negative statements and commands) and with less “positive parenting” behaviors (such as praise) at pre-treatment have also been found to be more likely to dropout.<sup>66,103</sup> Moreover, mother's self-reported pre-treatment use of positive discipline strategies such as differential attention and use of positive reinforcement at pre-treatment predict better outcomes.<sup>104</sup> Poor fit between frequently endorsed parenting practices and those promoted by BPT may partially explain higher rates of dropout and poorer outcomes in BPT for EM families. However, not all EM parents endorse authoritarian parenting practices, and such practices are predictive of poor treatment engagement across ethnic groups.

Aside from specific parenting styles, there have also been concerns that EM parents may find parenting techniques taught in BPTs less acceptable.<sup>105</sup> In fact, treatment acceptability studies have provided evidence suggesting particular resistance to techniques such as timeout and ignoring, and greater acceptance of positive reinforcement techniques among EM families.<sup>106–108</sup> Thus, efforts to identify parents who endorse an authoritarian parenting style or low acceptability of behavioral techniques at the outset of treatment and tailor the presentation of BPT techniques to better fit with the parents' worldview are likely to improve retention and outcomes for both EM and NHW families.

In MY PCIT, parents with elevated scores on a measure of authoritarian parenting are identified and further screened to determine if the parent finds any of the BPT strategies to have low acceptability. For example, such parents may find the use of praise to be uncomfortable and/or inconsistent with their philosophy of child-rearing. Parents who report low acceptability of praising their child are offered additional rationales for these techniques by therapists in terms that highlight their congruence with the parents' values. For example, therapists give parents personalized lists of labeled praises that are consistent with the parents' values as assessed at pre-treatment, such as self-control, respect, or obedience. Tying praise explicitly to the parents' goals and values may increase acceptability. Conversely, parents with elevated scores on a scale of permissive parenting are likely to struggle to set limits with their child. In order to increase the acceptability of time out for such parents, therapists review a handout that emphasizes that time out is a harmless, non-physical form of discipline that the child controls by his or her choices. The handout also points out that although time out is aversive to children in the short term, it will promote the well-being of their child by helping them learn to follow rules that are important for their health, safety, and success in school, similar to the way in which a vaccine or medicine may be painful in the short term, but important for the child's long-term health.

### Family Support for Treatment

Cultural groups vary on the extent to which it is considered acceptable or desirable to seek help for personal problems from individuals outside of the family and the extent to which family members will support a primary caregiver's efforts to seek and engage in BPT. Collectivistic cultures may emphasize the prioritization of familial relationships over non-family relationships and a preference for keeping



personal problems private within the family. Latinx-, Asian-, and African American families have all been described as more collectivistic, interdependent, and/or familistic than NHWs.<sup>109–111</sup> Although familism may translate into a great deal of interpersonal support to family members, some have argued that it also presents a barrier to treatment seeking.<sup>112</sup> For example, strong familism combined with negative attitudes towards mental health treatment may cause some Asian Americans to feel that experiencing and seeking services for psychological distress reflects badly on their family.<sup>113</sup> Furthermore, parents who are highly familistic are likely to receive and be influenced by input from a larger number of family members when they are deciding if and how to seek help for their child's behavior problems. One qualitative study of Mexican American families found that extended family members were highly influential in decisions on how to handle a child's behavior problems.<sup>71</sup> On average, parents reported that four people were involved in their decision to seek treatment for their child, most often spouses, grandparents, aunts/uncles, and teachers. Over half of parents bringing their child in for treatment experienced disapproval.

Evidence suggests that resistance to seeking help outside of the family and lack of family support for such help seeking is related to poorer engagement and outcomes in BPT. The belief that mental health problems should be resolved within the family has been found to predict premature termination of Mexican American youth in psychotherapy,<sup>114</sup> while lack of family support for treatment has been found to predict lower treatment acceptability of BPT in a multi-ethnic sample.<sup>115</sup> Furthermore, a study of MA youth in PCIT found that two of the strongest predictors of poor outcome were the extent to which the mother felt that mental health problems should be handled within the family (family/self reliance) and the number of extended family members who disapproved of treatment.<sup>104</sup> Father involvement in BPTs such as PCIT has also been found to predict significantly better long-term maintenance of treatment effects.<sup>116</sup> Taken together, these studies suggest that building family support for treatment is likely to improve BPT engagement and outcomes.

In MY PCIT, parents are asked to identify the family members who are either involved in the child's care or in the parent's decision making about the child, and who are not in support of the child's participation. Parents supply input on why the family members are likely to be unresponsive, and what strategies they feel could be useful to help increase their support for treatment. Methods that could increase family members' engagement and support

include reaching out to those members via a phone call from the therapist, sending home handouts that present the program in terms that may be de-stigmatizing (for example, as teaching parents effective discipline rather than psychotherapy), inviting extended family members to come to sessions, and providing family members with a link to view a video or with a copy of a newspaper article about the program to read at home.

## Summary and Conclusion

A comprehensive method to personalize BPT for families across multiple ethnic groups that are at high risk for externalizing behavior disorders as well as treatment failure holds great promise for increasing treatment engagement and outcomes for EM families in BPT. The PersIn approach maximizes the potential for success by targeting PEM parameters that have been empirically demonstrated to vary by ethnicity and to be related to treatment engagement and/or outcomes. Furthermore, it is attentive to the fidelity/adaptation balance because the core features of the EBT are retained and modifications are limited to areas where the family is assessed to be at risk for dropout or failure to benefit from treatment. It maximizes the likelihood that the intervention will fit clients, regardless of how typical or atypical their beliefs may be for their cultural group. It also has the flexibility to change with time as cultures evolve, rather than viewing cultural identity as a static construct. The personalization of EBTs is efficient because therapists can learn a single approach to tailoring an intervention that can be applied to multiple ethnic groups. In addition, because many of the PEM parameters are not unique to BPT, this model of personalization may also be expanded to other types of interventions. Future research should establish the feasibility of implementing this approach, as well as test its ability to improve engagement and outcomes of families from a wide variety of ethnic backgrounds in PCIT.

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## References

- Bloom B, Jones LI, Freeman G. Summary health statistics for U.S. children: National Health Interview Survey, 2012. National Center for Health Statistics. *Vital Health Stat.* 2013;10(258).
- Loeber R, Burke JD, Lahey BB, Winters A, Zera M. Oppositional defiant and conduct disorder: a review of the past 10 years, Part I. *J Am Acad Child Adolesc Psychiatry.* 2000;39(12):1468–1484. doi:10.1097/00004583-200012000-00007
- Merikangas KR, He JP, Brod D, Fisher PW, Bourdon K, Koretz DS. Prevalence and treatment of mental disorders among U.S. children in the 2001–2004 NHANES. *Pediatrics.* 2010;125(1):75–81. doi:10.1542/peds.2008-2598
- Riddle MA, Yershova K, Lazzaretto D, et al. The preschool attention-deficit/hyperactivity disorder treatment study (PATS) 6-year follow-up. *J Am Acad Child Adolesc Psychiatry.* 2013;52(3):264–278. doi:10.1016/j.jaac.2012.12.007
- Gunter T, Arndt S, Riggins-Caspers K, Wenman G, Cadoret R. Adult outcomes of attention deficit hyperactivity disorder and conduct disorder: are the risks independent or additive? *Ann Clin Psychiatry.* 2006;18(4):233–237. doi:10.1080/10401230600948415
- Tremblay RE, Masse B, Perron D, Leblanc M, Schwartzman AE, Ledingham JE. Early disruptive behavior, poor school achievement, delinquent behavior, and delinquent personality: longitudinal analyses. *J Consult Clin Psychol.* 1992;60(1):64–72. doi:10.1037/0022-006X.60.1.64
- Yoshimasu K, Barbaresi WJ, Colligan RC, et al. Childhood ADHD is strongly associated with a broad range of psychiatric disorders during adolescence: a population-based birth cohort study. *J Child Psychol Psychiatry.* 2012;53(10):1036–1043. doi:10.1111/j.1469-7610.2012.02567.x
- Chorozoglou M, Smith E, Koerting J, Thompson MJ, Sayal K, Sonuga-Barke EJ. Preschool hyperactivity is associated with long-term economic burden: evidence from a longitudinal health economic analysis of costs incurred across childhood, adolescence and young adulthood. *J Child Psychol Psychiatry.* 2015;56(9):966–975. doi:10.1111/jcpp.12437
- Cohen MA. The monetary value of saving a high-risk youth. *J Quant Criminol.* 1998;14(1):5–33. doi:10.1023/A:1023092324459
- Foster EM, Jones DE. The high costs of aggression: public expenditures resulting from conduct disorder. *Am J Public Health.* 2005;95(10):1767–1772. doi:10.2105/AJPH.2004.061424
- Scott S, Knapp M, Henderson J, Maughan B. Financial cost of social exclusion: follow up study of antisocial children into adulthood. *BMJ.* 2001;323:191–194. doi:10.1136/bmj.323.7306.191
- Nguyen L, Huang LN, Arganza GF, Liao Q. The influence of race and ethnicity on psychiatric diagnoses and clinical characteristics of children and adolescents in children's services. *Cultur Divers Ethnic Minor Psychol.* 2007;13(1):18–25. doi:10.1037/1099-9809.13.1.18
- Yeh M, McCabe K, Hurlburt M, et al. Referral sources, diagnoses, and service types of youth in public outpatient mental health care: a focus on ethnic minorities. *J Behav Health Serv Res.* 2002;29(1):45–60. doi:10.1007/BF02287831
- Ezpeleta L, Keeler G, Alaatin E, Costello EJ, Angold A. Epidemiology of psychiatric disability in childhood and adolescence. *J Child Psychol Psychiatry.* 2001;42(7):901–914. doi:10.1111/1469-7610.00786
- Eyberg SM, Nelson MM, Boggs SR. Evidence-based treatments for child and adolescent disruptive behavior disorders. *J Clin Child Psychol.* 2008;37(1):215–237. doi:10.1080/15374410701820117
- National Advisory Mental Health Council (NAMHC). From discovery to cure: accelerating the development of new and personalized interventions for mental illness. National Institute of Mental Health website; August, 2010. Available from: [https://www.nimh.nih.gov/about/advisory-boards-and-groups/namhc/reports/fromdiscoverytocure\\_103739.pdf](https://www.nimh.nih.gov/about/advisory-boards-and-groups/namhc/reports/fromdiscoverytocure_103739.pdf) Accessed September 11, 2019.
- Pina AA, Polo AJ, Huey SJ. Evidence-based psychosocial interventions for ethnic minority youth: the 10-year update. *J Clin Child Psychol.* 2019;48(2):179–202. doi:10.1080/15374416.2019.1567350
- Lau AS, Fung JJ, Yung V. Group parent training with immigrant Chinese families: enhancing engagement and augmenting skills training. *J Clin Psychol.* 2010;66(8):880–894. doi:10.1002/jclp.v66:8
- Ortiz C, Del Vecchio T. Cultural diversity: do we need a new wake-up call for parent training? *Behav Ther.* 2013;44:443–458. doi:10.1016/j.beth.2013.03.009
- Castro FG, Barrera MJ, Martinez CJ. The cultural adaptation of prevention interventions: resolving tensions between fidelity and fit. *Prev Sci.* 2004;5(1):41–45. doi:10.1023/B:PREV.0000013980.12412.cd
- Gardner F, Montgomery P, Knerr W. Transporting evidence-based parenting programs for child problem behavior (age 3–10) between countries: systematic review and meta-analysis. *J Clin Child Adolesc Psychol.* 2016;45(6):749–762. doi:10.1080/15374416.2015.1015134
- Leijten P, Melendez-Torres GJ, Knerr W, Gardner F. Transported versus homegrown parenting interventions for reducing disruptive child behavior: a multilevel meta-regression study. *J Am Acad Child Adolesc Psychiatry.* 2016;55(7):610–617. doi:10.1016/j.jaac.2016.05.003
- Lau A. Making the case for selective and directed cultural adaptations of evidence-based treatments: examples from parent training. *Clin Psychol (New York).* 2006;13(4):295–310. doi:10.1111/j.1468-2850.2006.00042.x
- Chacko A, Jensen SA, Lowry LS, et al. Engagement in behavioral parent training: review of the literature and implications for practice. *Clin Child Fam Psychol Rev.* 2016;19(3):204–215. doi:10.1007/s10567-016-0205-2
- Kazdin AE, Stolar MJ, Marciano PL. Risk factors for dropping out of treatment among White and Black families. *J Fam Psychol.* 1995;9(4):402–417. doi:10.1037/0893-3200.9.4.402
- Yeh M, Hough RL, McCabe K, Lau A, Garland A. Parental beliefs about the causes of child problems: exploring racial/ethnic patterns. *J Am Acad Child Adolesc Psychiatry.* 2004;43(5):605–612. doi:10.1097/00004583-200405000-00014
- Reid MJ, Webster-Stratton C, Beauchaine TP. Parent training in head start: a comparison of program response among African American, Asian American, Caucasian, and Hispanic mothers. *Prev Sci.* 2001;2(4):209–227. doi:10.1023/A:1013618309070
- Lavigne JV, LeBailly SA, Gouze KR, Binns HJ, Keller J, Pate L. Predictors and correlates of completing behavioral parent training for the treatment of oppositional defiant disorder in pediatric primary care. *Behav Ther.* 2010;41(2):198–211. doi:10.1016/j.beth.2009.02.006
- Fernandez M, Butler A, Eyberg S. Treatment outcome for low socioeconomic status African American families in parent-child interaction therapy: a pilot study. *Child Fam Behav Ther.* 2011;33(1):32–48. doi:10.1080/07317107.2011.545011
- Cunningham CE, Boyle M, Offord D, et al. Tri-ministry study: correlates of school-based parenting course utilization. *J Consult Clin Psychol.* 2000;68(5):928–933. doi:10.1037/0022-006X.68.5.928
- Kazdin AE, Mazurick JL, Bass D. Risk for attrition in treatment of antisocial children and families. *J Clin Child Psychol.* 1993;22(1):2–16. doi:10.1207/s15374424jccp2201\_1

32. Orrell-Valente JK, Pinderhughes EE, Valente EJ, Laird RD. If it's offered, will they come? Influences on parents' participation in a community-based conduct problems prevention program. *Am J Community Psychol.* 1999;27(6):753–783. doi:10.1023/A:1022258525075
33. Holden GW, Lavigne VV, Cameron AM. Probing the continuum of effectiveness in parent training: characteristics of parents and preschoolers. *J Clin Child Psychol.* 1990;19(1):2–8. doi:10.1207/s15374424jccp1901\_1
34. Matos M, Bauermeister JJ, Bernal G. Parent-child interaction therapy for Puerto Rican preschool children with ADHD and behavior problems: a pilot efficacy study. *Fam Process.* 2009;48(2):232–252. doi:10.1111/j.1545-5300.2009.01279.x
35. McCabe K, Yeh M. Parent-child interaction therapy for Mexican Americans: a randomized clinical trial. *J Clin Child Psychol.* 2009;38(5):753–759. doi:10.1080/15374410903103544
36. Ramos G, Blizzard AM, Barroso NE, Bagner DM. Parent training and skill acquisition and utilization among Spanish and English-speaking Latino families. *J Child Fam Stud.* 2018;27(1):268–279. doi:10.1007/s10826-017-0881-7
37. Lau AS, Fung JJ, Ho LY, Liu LL, Gudiño OG. Parent training with high-risk immigrant Chinese families: a pilot group randomized trial yielding practice-based evidence. *Behav Ther.* 2011;42(3):413–426. doi:10.1016/j.beth.2010.11.001
38. Chaffin M, Silovsky JF, Funderburk B, et al. Parent-child interaction therapy with physically abusive parents: efficacy for reducing future abuse reports. *J Consult Clin Psychol.* 2004;72(3):500–510. doi:10.1037/0022-006X.72.3.500
39. Caughy MO, Miller TL, Genevro JL, Huang K-Y, Nautiyal C. The effects of healthy steps on discipline strategies of parents of young children. *J Appl Dev Psychol.* 2003;24(5):517–534. doi:10.1016/j.appdev.2003.08.004
40. Hawkins JD, Von Cleve E, Catalano RF. Reducing early childhood aggression: results of a primary prevention program. *J Am Acad Child Adolesc Psychiatry.* 1991;30(2):208–217. doi:10.1097/00004583-199103000-00008
41. Conduct Problems Prevention Research Group. Using the Fast Track randomized prevention trial to test the early-starter model of the development of serious conduct problems. *Dev Psychopathol.* 2002;14(4):925–943. doi:10.1017/S0954579402004133.
42. Benish SG, Quintana S, Wampold BE. Culturally adapted psychotherapy and the legitimacy of myth: a direct-comparison meta-analysis. *J Couns Psychol.* 2011;58(3):279–289. doi:10.1037/a0023626
43. Hall GCN, Ibaraki AY, Huang ER, Marti CN, Stice E. A meta-analysis of cultural adaptations of psychological interventions. *Behav Ther.* 2016;47(6):993–1014. doi:10.1016/j.beth.2016.09.005
44. Soto A, Smith TB, Griner D, Domenech Rodríguez M, Bernal G. Cultural adaptations and therapist multicultural competence: two meta-analytic reviews. *J Clin Psychol.* 2018;74(11):1907–1923. doi:10.1002/jclp.22679
45. Smith T, Domenech Rodríguez MM, Bernal G. Culture. *J Clin Psychol.* 2011;67:166–175. doi:10.1002/jclp.20757
46. Parra Cardona JR, Domenech-Rodríguez M, Forgatch M, et al. Culturally adapting an evidence-based parenting intervention for Latino immigrants: the need to integrate fidelity and cultural relevance. *Fam Process.* 2012;51(1):56–72. doi:10.1111/j.1545-5300.2012.01386.x
47. Turner KM, Richards M, Sanders MR. Randomised clinical trial of a group parent education programme for Australian Indigenous families. *J Paediatr Child Health.* 2007;43(6):429–437. doi:10.1111/j.1440-1754.2007.01053.x
48. van Mourik K, Crone MR, de Wolff MS, Reis R. Parent training programs for ethnic minorities: a meta-analysis of adaptations and effect. *Prev Sci.* 2017;18:95–105. doi:10.1007/s1121-016-0733-5
49. Backer TE. *Finding the Balance: Program Fidelity and Adaptation in Substance Abuse Prevention: A State-Of-The-Art Review.* Rockville, MD: Center for Substance Abuse Prevention; 2001.
50. Kumpfer KL, Alvarado R, Smith P, Bellamy N. Cultural sensitivity and adaptation in family-based prevention interventions. *Prev Sci.* 2002;3(3):241–246. doi:10.1023/A:1019902902119
51. Franklin ME, DeRubeis RJ, Westen DI. Are efficacious laboratory-validated treatments readily transportable to clinical practice? In: Norcross JC, Beutler LE, Levant RF, editors. *Evidence-Based Practices in Mental Health: Debate and Dialogue on the Fundamental Questions.* Washington, DC: American Psychological Association; 2006:375–402. doi:10.1037/11265-009
52. Kazdin AE. Adolescent mental health: prevention and treatment programs. *Am Psychol.* 1993;48(2):127–141. doi:10.1037/0003-066X.48.2.127
53. Webster-Stratton C. Affirming diversity: multi-cultural collaboration to deliver the incredible years parent programs. *Int J Child Health Hum Dev.* 2009;2(1):17–32.
54. Lorenzo-Blanco EI, Bares CB, Delva J. Parenting, family processes, relationships, and parental support in multiracial and multi-ethnic families: an exploratory study of youth perceptions. *Fam Relat.* 2013;62(1):125–139. doi:10.1111/j.1741-3729.2012.00751.x
55. Kleinman A, Benson P. Anthropology in the clinic: the problem of cultural competency and how to fix it. *PLoS Med.* 2006;3(10):e294. doi:10.1371/journal.pmed.0030294
56. Zane N, Sue S, Chang J, et al. Beyond ethnic match: effects of client-therapist cognitive match in problem perception, coping orientation, and therapy goals on treatment outcomes. *J Community Psychol.* 2005;33(5):569–585. doi:10.1002/jcop.20067
57. Acri M, Chacko A, Gopalan G, McKay M. Engaging families in treatment for child behavior disorders: A synthesis of the literature. In: Lochman JE, Matthys W, eds. *The Wiley Handbook of Disruptive and Impulse-Control Disorders.* Wiley-Blackwell; 2018:393–409.
58. Institute of Medicine (IOM). Crossing the quality chasm: a new health system for the 21st century. Washington, D.C: National Academies Press website; March, 2001. Available from: <http://www.nationalacademies.org/hmd/~media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf> Accessed September 11, 2019.
59. Horvath AO, Luborsky L. The role of the therapeutic alliance in psychotherapy. *J Consult Clin Psychol.* 1993;61(4):561–573. doi:10.1037/0022-006X.61.4.561
60. Martin DJ, Garske JP, Davis M. Relation of the therapeutic alliance with outcome and other variables: a meta-analytic review. *J Consult Clin Psychol.* 2000;68(3):438–450. doi:10.1037/0022-006X.68.3.438
61. Hawley KM, Garland AF. Working alliance in adolescent outpatient therapy: youth, parent and therapist reports and associations with therapy outcomes. *Child Youth Care Forum.* 2008;37(2):59–74. doi:10.1007/s10566-008-9050-x
62. Kleinman A. Clinical relevance of anthropological and cross-cultural research: concepts and strategies. *Am J Psychiatry.* 1978;135(4):427–431. doi:10.1176/ajp.135.4.427
63. Eyberg SM, Funderburk B. *Parent Child Interaction Therapy Protocol.* Gainesville, FL: PCIT International; 2011.
64. Thomas R, Abell B, Webb HJ, Avdagic E, Zimmer-Gembeck MJ. Parent-child interaction therapy: a meta-analysis. *Pediatrics.* 2017;140(3):1–2. doi:10.1542/peds.2017-0352
65. Capage LC, Bennett GM, McNeil CB. A comparison between African American and Caucasian children referred for treatment of disruptive behavior disorders. *Child Fam Behav Ther.* 2001;23(1):1–14. doi:10.1300/J019v23n01\_01
66. Danko CM, Garbacz LL, Budd KS. Outcomes of parent-child interaction therapy in an urban community clinic: a comparison of treatment completers and dropouts. *Child Youth Serv Rev.* 2016;60:42–51. doi:10.1016/j.childyouth.2015.11.007



67. Abrahamse ME, Niec LN, Junger M, Boer F, Lindauer RJ. Risk factors for attrition from an evidence-based parenting program: findings from the Netherlands. *Child Youth Serv Rev*. 2016;64:42–50. doi:10.1016/j.chilgyouth.2016.02.025
68. Chen YC, Fortson BL. Predictors of treatment attrition and treatment length in parent-child interaction therapy in Taiwanese families. *Child Youth Serv Rev*. 2015;59:28–37. doi:10.1016/j.chilgyouth.2015.10.009
69. Leung C, Tsang S, Sin TC, Choi SY. The efficacy of parent-child interaction therapy with Chinese families: randomized controlled trial. *Res Soc Work Pract*. 2015;25(1):117–128. doi:10.1177/1049731513519827
70. Thomas R, Zimmer-Gembeck MJ. Parent-child interaction therapy: an evidence-based treatment for child maltreatment. *Child Maltreat*. 2012;17(3):253–266. doi:10.1177/1077559512459555
71. McCabe KM, Yeh M, Garland AF, Lau AS, Chavez G. The GANA program: a tailoring approach to adapting parent child interaction therapy for Mexican Americans. *Educ Treat Children*. 2005;28(2):111–129.
72. McCabe K, Yeh M, Lau A, Argote CB. Parent-child interaction therapy for Mexican Americans: results of a pilot randomized clinical trial at follow-up. *Behav Ther*. 2012;43(3):606–618. doi:10.1016/j.beth.2011.11.001
73. Nock M, Kazdin A. Parent expectancies for child therapy: assessment and relation to participation in treatment. *J Child Fam Stud*. 2001;10(2):155–180. doi:10.1023/a:1016699424731
74. Constantino MJ, Ametrano RM, Greenberg RP. Clinician interventions and participant characteristics that foster adaptive patient expectations for psychotherapy and psychotherapeutic change. *Psychotherapy*. 2012;49(4):557–569. doi:10.1037/a0029440
75. Chaffin M, Valle LA, Funderburk B, et al. A motivational intervention can improve retention in PCIT for low-motivation child welfare clients. *Child Maltreat*. 2009;14(4):356–368. doi:10.1177/1077559509332263
76. Nock MK, Ferriter C, Holmberg E. Parent beliefs about treatment credibility and effectiveness: assessment and relation to subsequent treatment participation. *J Child Fam Stud*. 2007;16(1):27–38. doi:10.1007/s10826-006-9064-7
77. Sue S, Zane N. The role of culture and cultural techniques in psychotherapy: a critique and reformulation. *Am Psychol*. 1987;42(1):37–45. doi:10.1037/0003-066X.42.1.37
78. Dew SE, Bickman L. Client expectancies about therapy. *Ment Health Serv Res*. 2005;7(1):21–33. doi:10.1007/s11020-005-1963-5
79. Morrissey-Kane E, Prinz RJ. Engagement in child and adolescent treatment: the role of parental cognitions and attributions. *Clin Child Fam Psychol Rev*. 1999;2(3):183–198. doi:10.1023/A:1021807106455
80. Kazdin AE, Holland L, Crowley M. Family experience of barriers to treatment and premature termination from child therapy. *J Consult Clin Psychol*. 1997;65(3):453–463. doi:10.1037//0022-006x.65.3.453
81. Lambert MJ. Psychotherapy outcome research: implications for integrative and eclectic therapists. In: Norcross JC, Goldfried MR, editors. *Handbook of Psychotherapy Integration*. New York: Basic Books; 1992:94–129.
82. Chacko A, Wymbs BT, Rajwan E, Wymbs F, Feisen N. Characteristics of parents of children with ADHD who never attend, drop out, and complete behavioral parent training. *J Child Fam Stud*. 2017;26(3):950–960. doi:10.1007/s10826-016-0618-z
83. Chacko A, Wymbs BT, Wymbs FA, et al. Enhancing traditional behavioral parent training for single mothers of children with ADHD. *J Clin Child Adolesc Psychol*. 2009;38(2):206–218. doi:10.1080/15374410802698388
84. Nock MK, Kazdin AE. Randomized controlled trial of a brief intervention for increasing participation in parent management training. *J Consult Clin Psychol*. 2005;73(5):872–879. doi:10.1037/0022-006X.73.5.872
85. Chaffin M, Funderburk B, Bard D, Valle LA, Gurwitsch R. A combined motivation and parent-child interaction therapy package reduces child welfare recidivism in a randomized dismantling field trial. *J Consult Clin Psychol*. 2011;79(1):84–95. doi:10.1037/a0021227
86. Rolider A, Axelrod S, Van Houten R. Don't speak behaviorism to me: how to clearly and effectively communicate behavioral interventions to the general public. *Child Fam Behav Ther*. 1998;20(2):39–56. doi:10.1300/J019v20n02\_03
87. Yeh M, McCabe KM, Ahmed S, Trang D, Ganger W. Sociocultural factors and parent-therapist agreement on explanatory etiologies for youth mental health problems. *Adm Policy Ment Health*. 2016;43:693–702. doi:10.1007/s10488-015-0684-3
88. Yeh M, McCabe K, Hough RL, Lau A, Fakhry F, Garland A. Why bother with beliefs? Examining relationships between race/ethnicity, parental beliefs about causes of child problems, and mental health service use. *J Consult Clin Psychol*. 2005;73(5):800–807. doi:10.1037/0022-006X.73.5.800
89. Yeh M, Aarons GA, Ho J, et al. Parental etiological explanations and longitudinal medication use for youths with attention deficit hyperactivity disorder. *Adm Policy Ment Health*. 2014;41(3):401–409. doi:10.1007/s10488-013-0477-5
90. Peters S, Calam R, Harrington R. Maternal attributions and expressed emotion as predictors of attendance at parent management training. *J Child Psychol Psychiatry*. 2005;46(4):436–448. doi:10.1111/j.1469-7610.2004.00365.x
91. Yeh M, Lambros K, Tsai K, et al. Multistakeholder etiological explanation agreement and adolescent/parent treatment engagement. *J Clin Child Psychol*. 2019;48:42–53. doi:10.1080/15374416.2018.1520120
92. Patterson GR, Chamberlain PA. functional analysis of resistance during parent training therapy. *Clin Psychol (New York)*. 1994;1(1):53–70. doi:10.1111/j.1468-2850.1994.tb00006.x
93. Hoza B, Owens J, Pelham WR, et al. Parent cognitions as predictors of child treatment response in attention-deficit/hyperactivity disorder. *J Abnorm Child Psychol*. 2000;28(6):569–583. doi:10.1023/A:1005135232068
94. Greenfield PM, Keller H, Fuligni A, Maynard A. Cultural pathways through universal development. *Annu Rev Psychol*. 2003;54:461–490. doi:10.1146/annurev.psych.54.101601.145221
95. Bornstein MH. Form and function: implications for studies of culture and human development. *Cult Psychol*. 1995;1(1):123–137. doi:10.1177/1354067X9511009
96. Deater-Deckard K, Dodge KA. Externalizing behavior problems and discipline revisited: nonlinear effects and variation by culture, context, and gender. *Psychol Inq*. 1997;8(3):161–175. doi:10.1207/s15327965pli0803\_1
97. Ripoll-Nunez KJ, Rohner RP. Corporal punishment in cross-cultural perspective: directions for a research agenda. *Cross Cult Res*. 2006;40(3):220–249. doi:10.1177/1069397105284395
98. Chao R, Kanatsu A. Beyond socioeconomic: explaining ethnic group differences in parenting through cultural and immigration processes. *Appl Dev Sci*. 2008;12(4):181–187. doi:10.1080/10888690802388102
99. Baumrind D. Current patterns of parental authority. *Dev Psychol*. 1971;4(1, Pt. 2):1–103. doi:10.1037/h0030372
100. Gardner F, Ward S, Burton J, Wilson C. The role of mother-child joint play in the early development of children's conduct problems: a longitudinal observational study. *Soc Dev*. 2003;12(3):361–378. doi:10.1111/1467-9507.00238
101. Reid MJ, Webster-Stratton C, Baydar N. Halting the development of conduct problems in Head Start children: the effects of parent training. *J Clin Child Psychol*. 2004;33(2):279–291. doi:10.1207/s15374424jccp3302\_10
102. McWey LM, Holtrop K, Wojciak AS, Claridge AM. Retention in a parenting intervention among parents involved with the child welfare system. *J Child Fam Stud*. 2015;24(4):1073–1087. doi:10.1007/s10826-014-9916-5



103. Fernandez MA, Eyberg SM. Predicting treatment and follow-up attrition in parent-child interaction therapy. *J Abnorm Child Psychol.* 2009;37(3):431–441. doi:10.1007/s10802-008-9281-1
104. Dawson A, Fain K, McCabe KM, Yeh M Predictors of treatment outcome for Mexican American families in parent child interaction therapy. Poster presented at: the annual meeting of the Western Psychological Association; April 2015; Las Vegas, NV.
105. Calzada EJ. Bringing culture into parent training with Latinos. *Cogn Behav Pract.* 2010;17(2):167–175. doi:10.1016/j.cbpra.2010.01.003
106. Calzada EJ, Basil S, Fernandez Y. What Latina mothers think of evidence-based parenting practices: a qualitative study of treatment acceptability. *Cogn Behav Pract.* 2013;20(3):362–374. doi:10.1016/j.cbpra.2012.08.004
107. Pemberton JR, Borrego J. Increasing acceptance of behavioral child management techniques: what do parents say? *Child Fam Behav Ther.* 2007;29(2):27–45. doi:10.1300/j019v29n02\_03
108. Ho J, Yeh M, McCabe K, Lau A. Perceptions of the acceptability of parent training among Chinese immigrant parents: contributions of cultural factors and clinical need. *Behav Ther.* 2012;43(2):436–449. doi:10.1016/j.beth.2011.10.004
109. Altarriba J, Bauer L. Counseling the hispanic client: cuban Americans, Mexican Americans, and Puerto Ricans. *J Couns Dev.* 1998;76(4):389–396. doi:10.1002/j.1556-6676.1998.tb02697.x
110. Hall J, Guterman D, Lee HB, Little SG. Counselor-client matching on ethnicity, gender, and language: implications for counseling school-aged children. *N Am J Psychol.* 2002;4(3):367–380.
111. Park IK, Kim PY, Cheung RM, Kim M. The role of culture, family processes, and anger regulation in Korean American adolescents' adjustment problems. *Am J Orthopsychiatry.* 2010;80(2):258–266. doi:10.1111/j.1939-0025.2010.01029.x
112. Alvidrez J, Snowden L, Kaiser D. The experience of stigma among black mental health consumers. *J Health Care Poor Underserved.* 2008;19(3):874–893. doi:10.1353/hpu.0.0058
113. Shea M, Yeh CJ. Asian American students' cultural values, stigma, and relational self-construal: correlates and attitudes toward professional help seeking. *J Ment Health Couns.* 2008;30(2):157–172. doi:10.17744/mehc.30.2.g662g512r1352198
114. McCabe KM. Factors that predict premature termination among Mexican-American children in outpatient psychotherapy. *J Child Fam Stud.* 2002;11(3):347–359. doi:10.1023/A:1016876224388
115. Pemberton JR, Borrego JJ. The relationship between treatment acceptability and familism. *Int J Behav Consult Ther.* 2005;1(4):329–337. doi:10.1037/h0100757
116. Bagner D, Eyberg SM. Father involvement in parent training: when does it matter? *J Clin Child Psychol.* 2003;32(4):599–605. doi:10.1207/S15374424JCCP3204\_13

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