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### Culturally Adapted Mental Health Services: An Updated Meta-Analysis of Client Outcomes

When clients from diverse backgrounds seek professional mental health services, several concerns may arise: Will this therapist respect my beliefs and values? Will this therapist promote mainstream [White/European American] worldviews and solutions? Can I truly be myself in therapy? Clients may not verbalize these specific concerns, but these are among many that may adversely impact client outcomes in traditional therapy (Sue & Zane, 1987; Sue et al., 2006). Thus clinicians should ask this critical question: To what extent does the therapy I provide align with the cultural beliefs, values, and goals of this client?

Although mental health treatments have proliferated in recent decades, most treatments are based on theories that reflect European and European-American ideals and values (e.g., psychodynamic, client-centered, cognitive behavioral). As such, these traditional mental health treatments have frequently ignored or minimized contextual variables such as culture, gender, race and ethnicity, socioeconomic status, and religious and spiritual values (Hall, 2001; Ibaraki & Hall, 2014; Ponterotto, Casas, Suzuki, & Alexander, 2010). Rather than assume that any particular treatment will meet the needs of every client, therapists must consider these contextual and environmental variables in order to effectively align the treatment with the needs and experiences of the client (Cardemil, 2010b; Norcross & Wampold, 2011).

Cultural adaptations should be made to traditional treatments to better meet the needs of a diverse clientele (Castro, Barrera, & Steiker, 2010; Gone & Trimble, 2012; Smith, 2010). For instance, because Western values such as assertive individuation may contradict psychological

well-being as conceptualized by clients from collectivistic cultures, therapists working with these populations may find that explicitly addressing the clients' social cohesion may prove more effective than the individualistic focus of many mental health treatments. Thus a therapist working with Hispanic/Latino(a) clients could consider family involvement in treatment (Falicov, 2009; Hurwich-Reiss, Rindlaub, Wadsworth, & Markman, 2014). Alternatively, a therapist who generally practices a strictly behavioral orientation to treatment might benefit from considering the cultural beliefs of a client who may think that ancestral spirits cause depression, even if most of the interventions remain behavioral in nature. A therapist who has discerned that an Alaska Native client favors traditional worldviews could incorporate cultural imagery and metaphors. Culturally competent treatments involve adaptations to methods of delivery, content, and conceptualizations, such that the client becomes more likely to engage in and successfully complete the treatment provided (Sue, Zane, Hall, & Berger, 2009; Zane & Ku, 2014).

Psychologists have an ethical obligation to provide the most effective service available to their clients (Trimble, Scharrón-del-Río, & Hill, 2012; Vasquez, 2012). Much of the therapy literature focuses attention on evidence-based practices (EBP) (Kazdin, 2008), but EBPs, like most standardized treatment approaches, do not account for the needs of culturally diverse clients (La Roche & Christopher, 2008). Treatments provided should be based on evidence, but therapists must remember that no single EBP will work with every client. They must attend to cultural factors that influence therapy (Cardemil, 2010a; Smith, 2010; Sue, 2003; Trimble et al., 2012) and realize that cultural adaptations to EBPs are justified (Castro et al., 2010). Therapists who assume that an EBP is equally effective across all cultures take a universalistic approach to treatment, giving deference to the particular EBP over the realities of a particular client. These therapists may inappropriately apply the EBP by setting goals and embracing values that

coincide with their own culture but not the client's culture (Comas-Forgas, 2006; Falicov, 2009). The field of multicultural psychology should help to replace culturally insensitive treatments (even those that may be evidence based) with culturally appropriate services.

Although cultural adaptations to mental health treatments are beneficial, they must be done systematically, using empirical data to support implementation (Barrera, Castro, Strycker, & Toobert, 2013; Huey, Tilley, Jones, & Smith, 2014; Rodríguez & Bernal, 2012). Multicultural psychology cannot assume that particular culturally adapted treatments are superior to traditional treatments without evidence and without simultaneous reliance on empirical data to refine the cultural adaptations made (Bernal, Jiménez-Chafey, & Domenech Rodríguez, 2009; Cardemil, 2010b; Castro et al., 2010; Huey et al., 2014). Cultural adaptations should be subject to the same intense scrutiny necessary for any high-risk activity involving individuals' well-being. Research on the effectiveness of cultural adaptations will help mental health professionals understand how best to apply the abstract principles of multicultural psychology to real world practices, with the goal of improving the outcomes of diverse clients over outcomes of treatment as usual.

## **Review of the Literature**

### **Relevant Conceptual Issues**

Although psychotherapy is relatively modern, mental health treatments are ancient. Cultures across the world have long practiced healing rituals or provided worldviews to enhance coping with psychological distress and mental illness (Calabrese, 2008; McCubbin & Marsella, 2009). Significant improvements in mental health treatments over the past century should not be misinterpreted to mean that all other conceptualizations and practices relevant to mental health are invalid or archaic. Psychologists have no monopoly on effective mental health treatments.

Furthermore, although many individuals in North America have come to see psychotherapy as a socially acceptable method for treating mental health concerns, individuals from other cultural origins may not feel the same way. Many individuals from diverse cultural backgrounds consider Western forms of psychotherapeutic interventions to be strange, invalidating, and intrusive (Hall, 1997; Jackson, Schmutzer, Wenzel, & Tyler, 2006). Although psychotherapy is effective (Campbell, Norcross, Vasquez, & Kaslow, 2013; Lambert, 2007), racial and ethnic minorities may encounter barriers such as difficulties discussing the negative consequences of racism with White therapists (Sue, 2015) and may therefore have outcomes less positive than expected (Sue, 1998). Some scholars have therefore advocated that psychologists in North America attend to indigenous conceptualizations and practices, with methods specific to local contexts increasingly being developed (Kim, Yang, & Hwang, 2006; Ramos & Alegría, 2014). In situations where indigenous approaches to psychology are insufficiently understood or are impractical to inform mental health treatments, mental health practitioners can use existing EBPs, adapting them to align with clients' cultural values and worldviews (Barrera et al., 2013).

Several decades ago, Stanley Sue (1977) specifically recommended that therapists culturally adapt treatment at the client-therapist level as well as at a system level. His original suggestions have become a catalyst for subsequent culturally sensitive treatments. These suggestions included (1) conducting therapy in the client's preferred language, (2) matching clients and therapists according to race or ethnicity, (3) developing mental health clinics that cater to specific racial or ethnic groups, and (4) providing alternative methods for mental health services delivery (Bernal & Flores-Ortiz, 1982; Flaskerud, 1986; Miranda et al., 2005; Sue, 1977). The first suggestion, language matching, was an obvious improvement over the common English-only services, but simply translating content into a client's preferred language would not

correct underlying cultural differences in conceptualizations of mental health or methods for enhancing well-being. The second recommendation, racial matching, has proven effective in delimited circumstances (Cabral & Smith, 2011, see also Chapter 6 of this book), such as those involving African Americans and immigrant populations. The third recommendation has not been widely heeded, as very few contemporary clinics provide specialized services for a given racial or ethnic group. Over time the fourth recommendation, providing alternative methods and cultural modifications to existing methods, has received more emphasis than the other three (e.g., Chen & Davenport, 2005; Smith, 2010; Sue et al., 2009).

Cultural adaptations can be made according to the concept of *dynamic sizing* (Sue, 1998), accounting for commonalities in culturally diverse groups while also respecting and attending to individual differences (La Roche & Lustig, 2010). For example, a Native American Indian client who embraces indigenous spirituality may benefit from a spiritual healing ritual integrated into therapy (Calabrese, 2008; Trimble, King, Morse, & Thomas, 2014). But a Chinese American client who was raised and educated in the US may prefer standard cognitive behavioral therapy (CBT) techniques to a version of CBT adapted to account for traditional Chinese worldviews and values (Chen & Davenport, 2005). Thus therapists should be mindful to align treatment with individual clients' cultural worldviews (La Roche & Lustig, 2013), rather than assume that standard (non-adapted) treatment is sufficient (Cardemil, 2010a) or implement cultural adaptations without verifying whether they actually match the client's worldviews, including acculturation level (Sue, 2010). Therapists should tailor the treatment to the individual client (Norcross & Wampold, 2011), not assume generalization without evidence for generalization (Cardemil, 2010b; Sue, 1999).

Given the essential cultural-specific expertise needed for such adaptations to treatment, clinicians may feel overwhelmed, particularly when considering the many possible ways that treatment could be modified to better align with cultural factors. To help specify the types of cultural adaptations that should be most effective in mental health treatments, scholars have developed conceptual frameworks to help guide clinicians.

An ecological validity model (Bernal, Bonilla, & Bellido, 1995) addressed eight specific cultural domains that clinicians should consider when working with culturally diverse clients.

- *Language* adaptations, extending beyond interpretation/translation to include terminology and methods for communicating that are appropriate to the client's particular background (e.g., for Mexican Americans, the phrase “*échale ganas*” rather than “hang in there”).
- *Persons*, the attention that should be directed to the client-therapist relationship, particularly cultural similarities and differences (Asnaani & Hofmann, 2012)
- *Metaphors*, the symbols, folklore, and concepts shared by a cultural group of individuals (Parra Cardona et al., 2012)
- *Content*, culture-specific beliefs and practices (e.g., religious/spiritual beliefs, cultural history and traditions) that can be infused in therapeutic interventions (McCabe, Yeh, Lau, & Argote, 2012)
- *Concepts*, ways in which presenting concerns are conceptualized in a culturally congruent manner (e.g., accepting somatic conceptualizations of depression vs. depression conceptualized only in terms of emotional distress; exploring religious or spiritual concepts to explain suffering and healing) (Chen & Davenport, 2005)
- *Goals* for treatment, which should align with the cultural worldview of the client (e.g., collectivism vs. individualism) (see Diaz-Martinez, Interian, & Waters, 2010)

- *Methods* of treatment, which should be adapted for the individual needs of the client, congruent with his or her worldview (e.g., family-centered therapy vs. individual therapy)
- *Context*, the broader issues (e.g., acculturative stress, racial microaggressions, immigration, poverty) that culturally diverse clients may commonly face (Hinton, Rivera, Hofmann, Barlow, & Otto, 2012; La Roche, D'Angelo, Gualdron, & Leavell, 2006)

Therapists should attend to multiple dimensions such as these when culturally adapting mental health treatments. Additional considerations and frameworks for practice also provide guidance, but cannot be detailed in this chapter (Barrera & Castro, 2006; Hwang, 2006; Hwang, 2009; Lau, 2006; Leong, 2011; Whitbeck, 2006).

While research-based models provide a framework for addressing cultural factors that may be ignored by traditional forms of therapy (Huey et al., 2014; Rodríguez & Bernal, 2012), clinicians should be receptive to client feedback about what has and has not worked for them (Lambert, 2010). Researchers and clinicians may find that appropriate adaptations can be assessed through focus groups with individuals from the relevant community. A therapist might also consult community leaders, religious/spiritual leaders, scholars, and client family members for insight into the appropriateness of proposed adaptations for a specific cultural group, rather than attempting to address several culturally diverse groups with the same intervention (Smith, Rodríguez, & Bernal, 2011). The balance of appropriate etic versus emic adaptations is difficult, but it can be attained by thoughtful and purposeful consultation with clients and examination of the relevant literature, which includes several books on the topic of cultural adaptations (Bernal & Rodríguez, 2012; La Roche, 2012; Yeh, Parham, Gallardo, & Trimble, 2011).

### **Narrative Review of the Research Literature**

Several years after guidelines for cultural adaptations of treatments were publicized, culturally congruent services remained very rare (Sue et al., 2006). Nevertheless, the topic has received increasing professional interest (Bernal et al., 2009; Cardemil, 2010b; Huey et al., 2014; Ramos & Alegría, 2014). Meta-analyses have shown that cultural adaptations of treatments are, in fact, effective (Benish, Quintana, & Wampold, 2011; Chowdhary et al., 2014; Smith et al., 2011; van Loon, van Schaik, Dekker, & Beekman, 2013). The first of these reviews (Griner & Smith, 2006) found that the average effect sizes for quasi-experimental and experimental designs were  $d = .42$  and  $d = .40$ , respectively. A subsequent update to that meta-analysis (Smith et al., 2011) found that when the results were adjusted for apparent publication bias, the average effect size was  $d = .27$ . A review of culturally adapted treatments for youth reported an average effect size of  $d = .22$  when the control group received treatment as usual (Huey & Polo, 2008). Another meta-analysis (Benish et al., 2011) reported an average effect size of  $d = .32$  when comparing culturally adapted treatments to bona-fide treatments. A recent review, limited to nine studies of outpatient treatment for depression and anxiety (van Loon et al., 2013), found substantially greater effectiveness ( $d = 1.06$ ). A review of 20 studies specific to the treatment of depression also found a large average effect size ( $d = .72$ ; Chowdhary et al., 2014). A recent review has summarized much of that work (Huey et al., 2014).

Overall, these meta-analyses and reviews have documented benefits of culturally adapted treatments when working with culturally diverse clients. Researchers and clinicians are, however, continually finding new and innovative ways to attend to cultural factors in therapy. The increasing number of research studies of culturally adapted treatments means that the literature must be continuously evaluated so practitioners can benefit from the latest findings and trends. Thus we sought to update our previous meta-analysis of culturally adapted interventions by



searching out additional data. After presenting the details of the meta-analysis, a summary of the findings is presented in a subsequent section.

### **Quantitative Synthesis of Research Data**

Our updated meta-analysis included studies identified in previous meta-analyses (Benish et al., 2011; Smith et al., 2011) that were conducted in the United States or Canada; evaluated clients' experiences in mental health services that were adapted based on culture, race, or ethnicity; and involved a control group using a quasi-experimental or experimental research design. We included any type of control group, and we recorded the nature of the control group as we were planning to compare those studies involving equivalent mental health services not culturally adapted (e.g., treatment as usual) vs. no treatment (e.g., clients on a waiting list receiving no services). We excluded studies with more than 10% White/European American clients or control group members because the cultural adaptations were presumed to enhance the experiences of people of color, such that the treatments would have different meaning for White/European American clients.

Statistical estimates within studies were converted to Cohen's  $d$  using meta-analytic software. Positive values for effect sizes indicated improved client outcomes (decreased symptoms, higher treatment completion rates) over the control group, whereas negative values indicated worse client outcomes compared to the control group. General methods of the meta-analysis are reported in the Appendix of this book.

### **Description of the Existing Research Literature**

We located 108 studies that evaluated a culturally adapted mental health treatment. However, we analyzed data from only 79 studies because 17 involved a single group of participants tracked over time (evaluating pre- to post-test changes without a control group), 8

involved a substantial number (> 10%) of White/European American participants, 2 involved correlational designs, 1 reported client treatment participation but no client outcome information, and 1 involved extended follow-up data to a previously published study already included in the review. As shown in Table 1, the 79 studies were conducted primarily during the past two decades, with most of the studies located being published. Subjects tended to be either children/adolescents or middle-aged adults, reflecting a trend in the literature for treatments to be either prevention-oriented (treating “at-risk” groups) or clinically-oriented (examining groups in community mental health clinics). Asian Americans and Hispanic/Latino(a) Americans were the two groups most commonly evaluated in studies. By contrast, African Americans and Native American Indians were evaluated in only 14% and 7% of the studies, respectively. Overall, the manuscripts contained data from 12,014 individual clients, but the median number of clients was 60, a small number of participants given that about half were in control group conditions. The types of cultural adaptations varied substantially across studies. Some studies clearly followed existing guidelines available in the professional literature (e.g., Bernal et al., 1995), but others had produced thin descriptions and/or had delimited adaptations to a few aspects of culture.

- 76% included explicit mention of cultural content/values in treatment
- 70% provided treatment in the clients’ preferred language when other than English
- 60% matched clients with therapists of similar ethnic/racial backgrounds
- 53% addressed clients’ contextual issues (e.g., experiences of racism, employment)
- 48% utilized metaphors from client cultures
- 47% modified the methods of delivering therapy based on cultural considerations
- 46% indicated that they had developed the cultural adaptations through consultation with individuals from the culture

- 43% adhered to the client's conceptualization of the presenting problem
- 42% based their cultural adaptations on published research or theoretical models
- 21% reported that mental health staff had received training in the cultural adaptations
- 18% modified the wording of outcome instrumentation to be culturally appropriate
- 11% explicitly solicited culturally congruent outcome goals from the client.

On average, studies reported 3.9 out of the 8 components of Bernal's model (Bernal et al., 1995). Only 14 studies (18%) involved more than 5 of the 8 components. Thus on the whole the studies made attempts to culturally adapt treatment without adhering closely to best practices.

The typical study involved an experimental design in which clients were randomly assigned to either a culturally adapted mental health treatment or "treatment as usual." In those studies, the effect size represents an estimate of the effectiveness of culturally adapted treatments. For the 24% of studies using quasi-experimental designs (non-random group composition) and the 47% of studies using no-treatment controls (clients on a waiting list), the magnitude of the effect size estimates would be influenced by factors other than the culturally adapted nature of the intervention; these studies thus warranted separate analyses. We also considered it essential to distinguish the results from studies using mental health treatments with clinical populations from results of studies involving prevention-oriented interventions for "at-risk" populations because the nature of the services provided would necessarily differ, and client outcomes and rate of change would also likely differ.

### **Overall Findings by Research Design, Control Group Type, and Treatment Type**

Across all 79 studies examining a culturally adapted mental health treatment, the random effects weighted effect size was  $d = 0.47$  ( $se = .043$ , 95% CI = 0.39 to 0.57,  $p < .0001$ ). The heterogeneity of the findings was high ( $I^2 = 72.0$ , 95% CI = 65 to 78;  $Q_{(78)} = 278.9$ ,  $p < .0001$ ),

meaning that the results tended to be very inconsistent across studies (see Figure 1). In the 60 studies in which participants were randomly assigned to treatment conditions (true experimental designs), average results were statistically significantly more effective than in the 19 studies using non-random assignment of clients to treatment conditions (quasi-experimental designs) ( $d = 0.55$  vs.  $d = 0.28$ ,  $p = .004$ ). This finding was unexpected because experimental designs that remove some plausible confounds (e.g., impact of self-selection on treatment effectiveness) typically result in more conservative effect sizes than designs in which confounds are uncontrolled. Also contrary to expectations, no meaningful difference was evident between the findings of the 37 studies comparing outcomes of treatment groups to those of no-treatment control groups (i.e., clients on a waiting list) and the findings of the 42 studies comparing outcomes in the experimental group to outcomes of clients receiving a bona fide treatment (“treatment as usual”) ( $d = 0.49$  vs.  $d = 0.46$ ,  $p > .10$ ).

Comparison of treatments for clinical populations vs. prevention-oriented programs for at-risk populations yielded similar results ( $d = 0.47$  vs.  $d = 0.52$ ,  $p > .10$ ). When we restricted analyses of those two types of studies to experimental designs with comparison groups receiving a comparable (but non-adapted) intervention, 12 treatments for clinical populations yielded an effect size of  $d = 0.56$ , and 15 prevention-oriented programs for at-risk populations yielded an average effect size of  $d = 0.59$ .

**Likelihood of publication bias adversely influencing the results.** When a researcher obtains results contrary to expectation (i.e., null findings), those results are less likely to be published and therefore more difficult to locate in a literature search and meta-analysis. This so-called publication bias can shift meta-analytic data toward the hypothesis favored by scholars because non-significant results were unrepresented. In this meta-analytic review, publication

bias apparently did influence the overall findings we reported. The data in Figure 1 were asymmetric, with a notable dearth of studies with few participants that did not achieve statistically significant results, indicating that studies with negative or null results had not been located in our literature search. Egger's regression test (an estimate of effect size asymmetry) was statistically significant ( $p < .0001$ ), indicative of publication bias. In addition, the trim and fill method (Duval & Tweedie, 2000) identified 22 "missing" studies in the distribution. When those hypothetically missing data were accounted for, the resulting omnibus effect size was reduced to  $d = 0.31$  (95% CI = 0.22 to 0.40). Evidence of publication bias was also found in the restricted sample of studies using an experimental design with a comparable treatment for the control group (i.e., culturally adapted treatment vs. "treatment as usual"). Thus the results presented in the previous section represent liberal estimates, and the influence of publication bias will need to be accounted for when interpreting the results and in subsequent analyses.

**Study and participant characteristics influencing the results.** Study and participant characteristics had been found to moderate the results of a previous meta-analysis (Smith et al., 2011). Specifically, the effectiveness of culturally adapted mental health treatments had been found to be greater among (1) adult client populations older than 35-40 years, (2) racially homogeneous samples of clients (with homogeneity being one indicator of specificity of cultural adaptations), (3) Asian American clients, and (4) studies involving multiple cultural adaptations (with more cultural adaptations producing more effective treatments). We sought to ascertain whether these variables would remain predictors of treatment effectiveness when the influence of publication bias and of experimental vs. quasi-experimental research design were considered. A meta-regression including these six variables explained 33.1% of the variance in effect sizes ( $p < .0001$ ), with the results depicted in Table 2. All variables contributed at least 1% of variance

to the model, as indicated by beta weights above .10, but two variables, the percentage of Asian American participants and the racial homogeneity of the client participants, failed to reach statistical significance in the presence of the other variables ( $k = 79$ ). The other four variables contributed equivalently to the model, each explaining between 6% and 7% of the variance in effect sizes. Culturally adapted mental health treatments continued to appear to be most effective for adult populations over age 40, likely interacting with acculturation level. And treatments involving multiple cultural adaptations were more effective than those with only a few types of cultural adaptations: The more closely a treatment aligned with recommended practices (e.g., Bernal et al., 1995), the more effective the treatment.

A separate meta-regression was conducted to examine whether any particular cultural adaptation was more predictive of positive client outcomes than any other. Indicators of the eight components of the ecological validity model (Bernal et al., 1995) explained 16.3% of the variance in effect sizes ( $p = .02$ ). The two types of cultural adaptations that remained statistically significant in the presence of the others were (1) explicitly basing treatment on the client's goals, informed by cultural values (standardized beta = 0.25,  $p = .03$ ) and (2) providing treatment in the clients' preferred language (standardized beta = 0.21,  $p = .04$ ). Both of these adaptations had proven effective in a previous meta-analysis (Griner & Smith, 2006).

### **Discussion and Interpretation of the Findings**

Compared to treatment as usual, culturally adapted treatments result in better outcomes for clients of color. Nevertheless, the underlying findings are highly variable (Figure 1), such that some culturally adapted treatments are clearly preferable to others. In fact, some culturally adapted treatments are about as effective as or worse than non-adapted treatment as usual (see also Huey et al, 2014). The distinguishing features of studies with findings of effective vs.

ineffective cultural adaptations were random assignment of clients to treatment conditions, treatment of adult clients above age 40 (likely conflated with level of acculturation), and more comprehensive cultural adaptations. Treatments were particularly effective when based on clients' goals, informed by cultural contexts, and provided in clients' preferred language. However, we observed a troubling trend for publication bias. Studies with null findings are apparently remaining unpublished. After accounting for publication bias, the magnitude of the overall results for studies using true experimental designs to compare culturally adapted treatments to bona fide treatments was  $d = .31$ .

### **Considerations for Future Research**

Researchers must continually evaluate psychotherapeutic interventions to ensure that clients are receiving the best services available. As several meta-analytic reviews have confirmed that cultural adaptations do result in better client outcomes than bona fide treatments, researchers can ask additional questions: What makes culturally adapted treatments more effective than traditional practices? Why are some culturally adapted treatments very effective but others are not much better than control group conditions (see Figure 1)? In such examinations scholars can explicitly evaluate the postulates of relevant conceptual models (Barrera & Castro, 2006; Bernal et al., 1995; Hwang, 2006; Hwang, 2009; Lau, 2006; Leong, 2011; Whitbeck, 2006). We know that cultural adaptations work, but we now need more specific information about the underlying mechanisms and processes (Smith, 2010).

We need greater attention to cultural adaptations to treatments involving Native American Indian clients, who are currently under-represented in research studies. Additional studies involving African American clients would also be useful. The field already has enough studies with relatively small numbers of participants, given that the median value was only 60

clients across 79 studies. With the variability in research findings among studies using relatively few participants (note range of effect sizes across bottom two-thirds of Figure 1), large multi-site research projects would be more useful. We encourage scholars in the field to collaborate on large-scale projects rather than work on separate small ones.

We also invite scholars as well as journal reviewers and editors to consider the issue of publication bias. Studies with statistically significant findings appear to be published more frequently than studies with non-significant results. Authors may be reluctant to submit manuscripts with findings that contradict the data evaluated in previous meta-analyses, and editors may be reluctant to publish them. This reluctance creates a problem: Not all cultural adaptations work (note the many points in the center area of non-significant results in Figure 1), and we do not benefit from science when failures remain hidden.

### **Suggestions for Practitioners**

In our review of the literature, we located several models and conceptual frameworks that can be used by clinicians to culturally adapt mental health treatments (Barrera & Castro, 2006; Bernal et al., 1995; Hwang, 2006; Hwang, 2009; Lau, 2006; Leong, 2011; Whitbeck, 2006). Clinicians should follow these models (Castro et al., 2010), but we found few instances of clinical practice that were explicitly based on them. On average, the treatments in the 79 studies we examined used 3.9 out of 8 aspects of Bernal's model, with only 14% using more than 5. Clinical practices reported in the literature are beneficial but fall short of the ideal. There are, no doubt, practical reasons why very few clinicians consider the conceptual frameworks available in the literature and why only about half of the recommended dimensions of adaptation are implemented. Identification of those reasons can facilitate removal of barriers and eventual implementation of best practices. The more cultural adaptations a therapist makes to a treatment,



the more effective that treatment is likely to be with clients of color. We urge practitioners to implement professional recommendations for culturally adapting mental health treatments.

Among the practices clinicians use to culturally adapt treatment, aligning treatment goals with the cultural worldviews and values of each client currently seems to be the most effective. This strategy yielded the strongest client outcomes across the few studies that implemented it. Therapists should give particular heed to working toward client-generated goals that incorporate cultural contexts. This process will help the clinician gain insight into the cultural worldview of the client and will also promote an egalitarian relationship, empowering the client.

The meta-analytic data also support providing treatment in the client's preferred language, consistent with existing professional guidelines:

Psychologists interact in the language requested by the client and, if this is not feasible, make an appropriate referral . . . . If this is not possible, psychologists offer the client a translator with cultural knowledge and an appropriate professional background. When no translator is available, then a trained paraprofessional from the client's culture is used as a translator/culture broker. (American Psychological Association, 1993, p. 47)

We hope that practitioners will make services available to clients who prefer a language other than English by using language interpreters or by actively using referral networks to find professionals with the necessary language skills.

## **Conclusion**

Culturally diverse clients benefit from efforts to align mental health treatments with their cultural values and worldviews. However, culturally adapted treatments vary in their effectiveness; some are very effective, while others are only slightly better, or even less effective, than non-adapted treatment as usual (Huey et al., 2014). Effective treatments tend to involve

comprehensive cultural adaptations, as clinicians align their work with the cultural values and worldviews of the clients.

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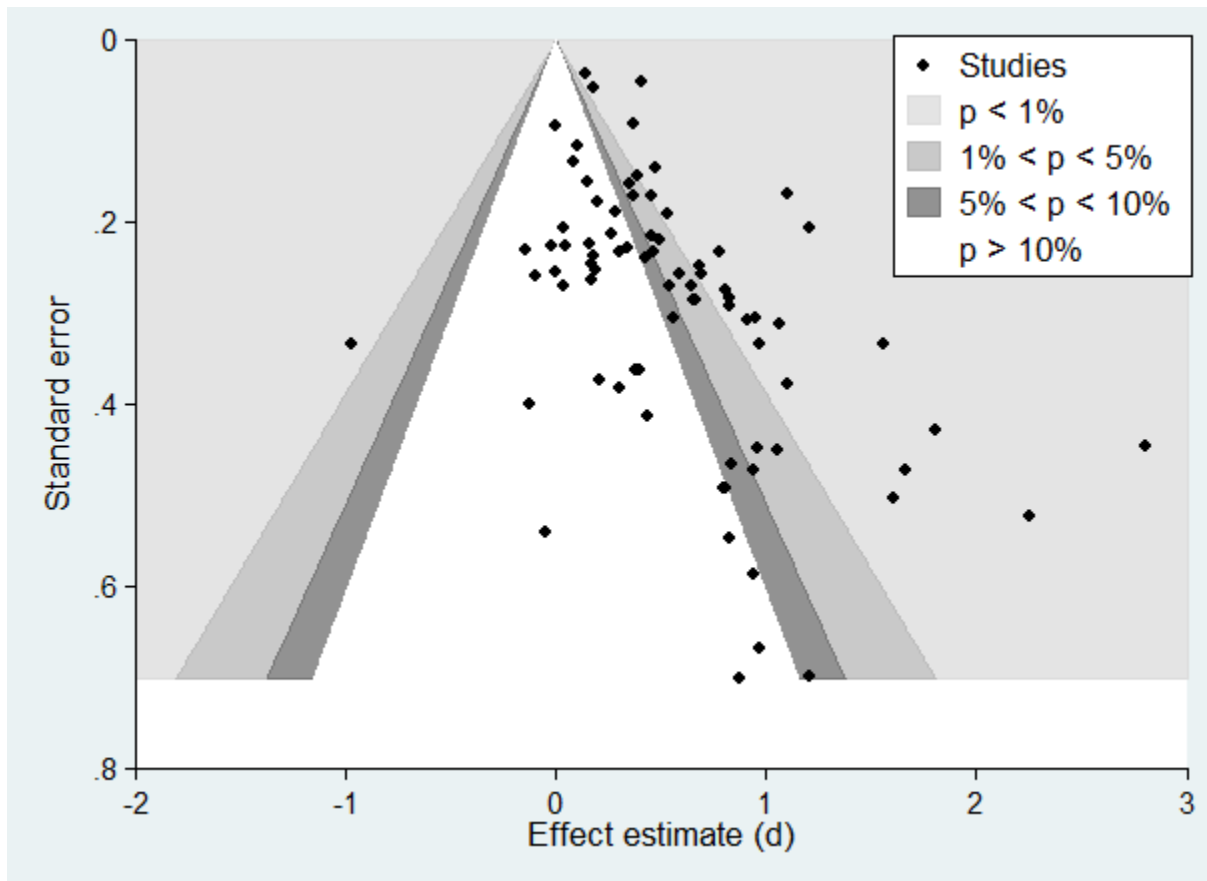


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Figure Caption

Figure 1. Contour-enhanced funnel plot of effect sizes (Cohen's  $d$ ) by standard error for 79 studies of culturally adapted treatments



*Note.* This graph shows the distribution of effect sizes as a function of the number of participants in the study (operationalized as standard error). The studies at the top of the graph are those with many participants (and small standard error values), studies that yielded results in the range of  $d = 0.0$  to  $0.5$ . The fewer the participants, the less consistent the results. Moreover, in the middle and bottom of the graph are few studies with non-significant results (note the absence of dots in the white area relative to the top of the graph and to the right of the graph). This distribution strongly suggests publication bias in the available literature; the overall average effect estimate should therefore be adjusted closer to zero ( $d = .31$ ) to account for apparently “missing” non-significant findings.

Table 1

*Characteristics of 79 Studies of Culturally Adapted Treatments*

Characteristic	<i>M</i>	Number of studies (k)	%
Year of report	2000		
Before 1980		0	0
1980 – 1989		8	10
1990 – 1999		26	33
2000 – 2012		45	57
Publication status			
Published		63	80
Unpublished dissertations		16	20
Research design			
Quasi-experimental		19	24
Experimental		60	76
Sample type			
Community members		9	11
At-risk clients		41	52
Clinical clients		29	37
Sample size	152		
< 50		31	39
50 – 99		30	38
100 – 199		9	11

Cultural Adaptations		29
200 – 399	4	5
400 – 999	2	3
> 1000	3	4
Age of participants <sup>a</sup>	25.5	
Children (< 13 yrs.)	22	28
Adolescents (13-18 yrs.)	20	25
Young adults (19-29 yrs.)	4	5
Middle-aged adults (30-55 yrs.)	29	37
Senior adults (> 56 yrs.)	4	5
Gender of participants (% Female)	58.4	
Race of participants <sup>b</sup> (%)		
African American	14	
Asian American	44	
Hispanic/Latino(a) American	35	
Native American Indian	7	
Other	<1	

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*Note.* Not all variables sum to the total number of studies due to missing data.

<sup>a</sup>Average age category of participants within studies, not all participants necessarily listed

<sup>b</sup>The racial composition of participants across all studies, calculated by multiplying the number of participants within studies by the percentage of participants from each racial group and dividing that product by the total number of participants

Table 2

*Random Effects Regression Weights for Study Characteristics Associated with Effect Sizes*

Variable	$R^2$	$\beta$	$p$
	33.1***		
Estimate of publication bias <sup>a</sup>		.25	.006
Sum of cultural adaptations <sup>b</sup>		.25	.005
Random assignment to treatment type	.27	.005	
Average client age		.26	.006
Percentage of Asian American clients		.14	.16
Client racial homogeneity within studies <sup>c</sup>		.11	.23

*Note.* <sup>a</sup>Inverse of the number of participants in the study (Peters, Sutton, Jones, Abrams, & Rushton, 2006)

<sup>b</sup>Sum of the eight indicators of the ecological model (Bernal et al., 1995)

<sup>c</sup>Contrast of studies in which all participants were of the same race with studies in which participants' race varied \*\*\*  $p < .001$