

Using Mediators and Moderators to Test Assumptions Underlying Culturally Sensitive Therapies: An Exploratory Example

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Factors hypothesized to impact Asian American responses to counseling were tested as mediators and moderators of perceived counselor credibility and working alliance. Asian and European American college students ($N = 182$) were assigned randomly to view simulated directive or nondirective therapy approaches. Mediation analyses examined whether ethnic group differences in initial perceptions were accounted for by therapist understandability and previous therapy experiences. Moderation analyses examined whether expectations for directive therapy, ambiguity tolerance, and resistance influenced initial perceptions across directive and nondirective counseling. Asian Americans rated the counseling approaches significantly less favorably than Europeans Americans. A significant mediation effect was found for therapist understandability, whereas a significant moderation effect was found for expectation for directive therapy on initial perceptions of counselor credibility.

Keywords: Asian Americans, culturally sensitive therapies, empirically supported therapies, counselor credibility, working alliance

In the first report of its kind, the Surgeon General announced major disparities in the mental health treatment of racial and ethnic minority groups (U.S. Department of Health and Human Services [USDHHS], 2001). The need for culturally responsive mental health services is increasingly apparent given that ethnic minorities are projected to constitute one half of the U.S. population within the next 50 years (Atkinson, Morten, & Sue, 1998). Yet, as it stands, psychotherapy research rarely reflects the cultural diversity that exists in reality (Hall, 2001).

In 1994, the National Institutes of Health (NIH) sought to remedy this problem by requiring the inclusion of women and ethnic minorities in all federally funded research projects (Hohmann & Parron, 1996). Although it is an important step, some have questioned whether mere inclusion of ethnic minorities will adequately address issues of culture (Hall, 2001; Mio & Iwamasa, 1993). Using ethnic group membership as a proxy to study the effects of culture has its limitations (Alvidrez, Azocar, & Miranda, 1996; Wong, Kim, Zane, Kim, & Huang, 2003).

Nevertheless, many of the current guidelines for culturally sensitive therapies (CSTs) are based upon ethnic group membership and observed ethnic group differences (Atkinson et al., 1998; Sue & Sue, 1999). For instance, when working with Asian Americans,

a common recommendation is to provide directive therapy. Such a recommendation is often based on findings demonstrating Asian Americans' greater expectations for directive therapy and regard for mental health professionals as authority figures (Leong, 1986; Mau & Jepsen, 1988; Sue & Sue, 1999; Yuen & Tinsley, 1981). However, enormous variation exists within any given ethnic group; clearly, not every Asian American individual will prefer directive therapy nor view a counselor as an authority figure. Although CSTs advise counselors to consider individual variations, more systematic and formal procedures have not yet been established.

CST guidelines that are based on observed ethnic group differences have another limitation. Ethnic group variations often occur on a multitude of dimensions (see Leong, 1986) making it unclear as to whether all, some, or none of these cultural variations do in fact impact the counseling process. Examining these cultural variations as mediators and moderators within a counseling context may address some of the current limitations of CSTs. Framing cultural influences as mediators and moderators of counseling process and outcome may have the added advantage of making CST research more accessible to those less familiar with the study of culture. Collaboration between proponents of empirically supported therapies (ESTs) and CSTs may help further information regarding the efficacy of CSTs, which is necessary if CSTs are to gain acceptance within the scientific, public, and managed care environment (Hall, 2001).

A mediator has been defined as "a variable that explains the relation between a predictor and an outcome" or stated differently, "mediators establish 'how' or 'why' one variable predicts or causes an outcome variable" (Frazier, Tix, & Barron, 1999, p. 116). Incorporating mediators can yield more specific information

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regarding ethnic group differences. If Asian Americans are found to respond to counseling less favorably than European Americans, mediators can help establish the “why” of ethnic group differences.

A moderator has been defined as “a variable that alters the direction or strength of the relation between a predictor and an outcome” (Frazier et al., p.116). In other words, “moderators address ‘when’ or ‘for whom’ a variable most strongly predicts or causes an outcome variable” (Frazier et al., p.116). Assessing for moderators can help address the wide range of individual variation among ethnic minority groups such as Asian Americans. By examining how cultural factors interact with different types of therapy, guidelines can be created on how to modify counseling given the particular presentation of an ethnic minority client. For instance, given the CST recommendation to provide Asian Americans with directive counseling, we can assess whether expectations for directive therapy or tolerance for ambiguity moderate responses to directive versus nondirective counseling.

If these client dimensions are significant moderators, we can then make more specific counseling recommendations that account for the heterogeneity of Asian Americans. An individual Asian American client can be assessed on expectations for directive therapy and ambiguity tolerance to aid in deciding whether more directive counseling is warranted. Thus, by examining the mediating and moderating effects of factors upon which CST guidelines are prefaced, greater knowledge and empirical support regarding CSTs can be achieved.

As an initial exploratory example of using mediators and moderators to refine CST guidelines, the present study examined the following with an Asian and European American college sample: (1) ethnic group variations in perceptions of counselor credibility and working alliance, and mediators of this relationship, and (2) client dimensions that may moderate perceptions of counselor credibility and working alliance across directive and nondirective therapy approaches. Given that a treatment’s success has been significantly tied to initial perceptions of credibility and working alliance (Hardy et al., 1995; Kazdin, 1979), counselor credibility and alliance ratings of analogue videos of directive and nondirective therapy approaches were used as measures of counseling responsiveness.

Counselor credibility, defined as the degree to which a counselor and the interventions used are seen as effective and valid, needs to be established early on in treatment, especially for ethnic minorities who may not view therapy as a viable solution to one’s emotional problems (Sue & Zane, 1987). Akutsu, Lin, and Zane (1990) found that among Taiwanese Chinese individuals, counselor credibility was significantly associated with willingness to initiate and continue treatment. Working alliance, or what has been called “the collaborative and affective bond between therapist and patient” (Martin, Garske, & Davis, 2000, p. 438), has been identified as a vital component of not only multicultural counseling but also of all types of psychotherapies (Fisher, Jome, & Atkinson, 1998). Moreover, findings indicate that working alliance early on in treatment is a strong predictor of eventual therapy outcomes (Luborsky, Crits-Christoph, Mintz, & Auerbach, 1998).

For the mediation model, it was hypothesized that Asian American participants would rate the therapy approaches significantly lower in counselor credibility and working alliance given Asian Americans’ underutilization and premature termination from mental health treatment (Bui & Takeuchi, 1992; Snowden & Cheung,

1990; Zhang, Snowden, & Sue, 1998). An often cited explanation for these ethnic group differences is that many Asian Americans may find talking about one’s problems to an outside professional, which is an integral component of therapy, unfamiliar (Sue & Zane, 1987; Uba, 1994). Sue and Sue (1999) note that mental health and psychological treatment are uncommon concepts within East Asian cultures.

Thus, the present study investigated whether factors that may render the counseling experience to be less foreign, such as therapist understandability and previous therapy experiences, mediated ethnic group differences in perceived counselor credibility and working alliance. Therapist understandability was generally assessed in the present study and refers to the degree of perceived comprehensibility of the therapist when discussing and conceptualizing the rationale of the treatment and the client’s presenting problem. It was hypothesized that therapist understandability and previous therapy experiences would be lower among Asian American participants, which in turn would explain the lower ratings of counselor credibility and working alliance by Asian Americans compared to European Americans.

For the moderation model, a conceptual framework derived from the work on aptitude by treatment interactions (ATIs) was implemented. ATIs focus on nondiagnostic client dimensions or “aptitudes” that moderate responses to different types of interventions (Beutler, Clarkin, & Bongar, 2000; Dance & Neufeld, 1988). Stated simply, ATIs identify *which* types of interventions work for *whom*. Recently designated as a “Demonstrably Effective” means to customizing therapy by an American Psychological Association (APA) Task Force (Akerman et al., 2001), ATIs may provide not only a useful framework when developing CST guidelines, but also may serve as a platform on which EST and CST researchers can collaborate. For example, as in this study, important client dimensions identified within CST research may be incorporated within an ATI framework, while also assessing the generalizability of already established ATIs with ethnic minority populations. Expectations for directive therapy and ambiguity tolerance, two important attributes cited within CST research (Leong, 1986; Sue & Sue, 1999), and resistance, an important client dimension within “mainstream” psychotherapy research were examined in the present study as client dimensions that may moderate initial perceptions of directive and nondirective therapy approaches.

Findings from a comprehensive review suggest that outcomes are improved when client and therapist role expectations are in agreement (Arnkoff, Glass, & Shapiro, 2002). Given that Asian Americans have been shown to prefer and expect counseling as a more directive process (see Leong, 1986), expectations for directive therapy may influence perceptions across directive and nondirective therapy. Thus, it was hypothesized that individuals with high expectations for directive therapy would rate the directive condition more positively than the nondirective condition, whereas no differences were expected among individuals with low expectations for directive therapy.

Ambiguity tolerance refers to the degree of discomfort or attraction experienced in the presence of uncertain ambiguous situations or stimuli (Furnham, 1994). Findings indicate that Asians have significantly lower levels of ambiguity tolerance than Western Europeans (Hamid, 1979; Hofstede, 2001; Sue & Kirk, 1972). Within Asian cultures, social interactions tend to be more highly structured, where the roles and rules for engagement are largely

determined by the context (Markus & Kitayama, 1991). Psychotherapy more often than not is an unfamiliar and thus ambiguous context for many Asian Americans (Sue & Sue, 1999), which may cause more unstructured, process-oriented types of therapy to be a source of anxiety and avoidance (Shon & Ja, 1982; Leong, 1986). Thus, an individual's tolerance for ambiguity may determine whether a more or less directive therapy is warranted. For this study specifically, it was hypothesized that more positive ratings would be attributed to directive than nondirective therapy among individuals with low ambiguity tolerance, whereas no significant differences between the therapy approaches would be found among individuals with high ambiguity tolerance.

Resistance described as a trait-like type of client response to therapy includes not only apparent noncompliance, but can take on more subtle forms like partial completion of homework assignments or deferred compliance (Beutler et al., 2000; Brehm & Brehm, 1981). Resistance has already been shown to moderate treatment outcomes across directive and nondirective therapy approaches, however primarily among European American clients (see Castonguay & Beutler, 2006). Resistance has been associated with a disregard for social norms, indifference toward one's reputation, and an aversion for rules (Beutler et al., 2000). In contrast, Asian Americans have been found to value conformity, social integrity, and structured roles and responsibilities more than European Americans (Markus & Kitayama, 1991). Neither the degree of resistance among Asian Americans nor its usefulness as a guide for the selection of directive and nondirective counseling with Asian Americans has been examined. Consistent with previous research, it is hypothesized that low-resistant individuals would view the directive condition more favorably than the nondirective condition and, conversely, high-resistant individuals would rate the nondirective condition more positively.

Methods

Participants

Participants were 182 individuals (99 women, 83 men) recruited from a West Coast college with an average age of 21.56 ($SD = 0.43$). Ninety-seven identified as European Americans (54%) and 85 as Asian Americans (46%). European American respondents were mostly either fourth (24%) or fifth (47%) generation, whereas Asian Americans were either first (53%) or second (44%) generation. The Asian American sample consisted of the following ethnic subgroups: Chinese (32%), Indian (24%), Filipino (12%), Korean (9%), Japanese (7%), Vietnamese (7%), Cambodian (2%), Indonesian (1%), and multiethnic Asian (6%). Although much within-group heterogeneity is evident between both Asian and European American ethnic groups, the present study focused on between-groups differences and thus collapsed the Asian subethnic groups in subsequent analyses.

Random assignment to the therapy approaches ensured that neither European Americans nor Asian Americans significantly differed in their distributions across the directive and nondirective counseling conditions, $\chi^2(1, N = 182) = 1.35, p = .25$. Similarly, the proportion of female and male participants did not significantly differ across the counseling approaches, $\chi^2(1, N = 182) = 0.40, p = .53$.

Measures

Demographic Variables

Participants responded to the following sociodemographic items: age, gender, ethnic group membership, number of years residing in the United States, generation, place of birth, and years of education. Family socioeconomic status was assessed by asking participants to list parents' occupations. Parents' occupations were then indexed according to the Nam-Powers socioeconomic index (Miller, 1991). This index is based on the education and income of certain occupations from the 1970 U.S. Census. Scores range from 0 to 100, with 100 being the most lucrative and prestigious socioeconomic status level. Concurrent validity for the Nam-Powers was indicated by its high correlation ($r = 0.97$) with the Duncan Socioeconomic Index. The reliability of this measure has been well established by comparing the scores for people across different decades from 1950 to 1980, with correlation coefficients ranging from 0.85 to 0.97 (Miller, 1991). Family socioeconomic status was calculated by averaging the Nam-Powers indices for both parents. Items significantly correlated to the outcome variables were included as covariates in subsequent analyses.

Mediator Variables

Familiarity with therapy. Participants were asked to indicate whether they had previous therapy experience (0 = *no*; 1 = *yes*). Participants acknowledging previous therapy experience were asked to approximate the number of sessions attended and to rate on a scale of 1 (*not at all*) to 10 (*very much*) how similar their own experiences in counseling were with the therapy approach presented.

Therapist understandability. Participants were asked to rate on a scale of 1 (*not at all*) to 5 (*extremely*) how understandable is the therapist.

Moderator Variables

Expectations for directive therapy. The Expectations About Counseling—Brief Form (EAC-B; Tinsley, 1982) is a 44-item measure derived from the longer original Expectations About Counseling questionnaire (Tinsley, Workman, & Kass, 1980). The EAC-B consists of 17 subscales assessing different expectancy domains of counseling. EAC-B scales have reported internal consistency ratings from 0.69 to .082 and a 2-month test-retest median reliability of 0.71. To assess for expectations for directive therapy, a total of 12 items derived from the subscales Directiveness, Concreteness, and Expertise were averaged. Items were rated on a seven-point Likert scale ranging from 1 (*not true*) to 7 (*definitely true*). Sample items included, *I expect the counselor will tell me what to do, explain what's wrong, and frequently offer me advice*. The combined subscales yielded a coefficient alpha of 0.86 for this study.

Ambiguity tolerance. The Multiple Stimulus Types Ambiguity Tolerance (MSTAT-I; McLain, 1993) measures a range of reactions from avoidance to attraction to ambiguous situations. The MSTAT-I's 26 items are scored on a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and represent various ambiguous situations characterized by unfamiliarity, contradiction, complexity, and uncertainty. Sample items

included: *I try to avoid situations which are ambiguous; It bothers me when I am unable to follow another person's train of thought and I prefer familiar situations to new ones.* The MSTAT-I has a demonstrated alpha reliability of 0.86. Convergent validity has been demonstrated by its significant and positive correlations with other ambiguity tolerance measures including Budner's (1962) 16-item scale and MacDonald's (1970) 20-item scale. Positive correlations with risk taking ($r = 0.38$; $p < .05$) and openness to change ($r = 0.58$; $p < .05$) as well as a negative correlation with dogmatism ($r = -0.34$; $p < .05$) support the construct validity of MSTAT-I. The MSTAT-I displayed a reliability coefficient of 0.86 in the present study.

Resistance. The Therapeutic Reactance Scale (TRS; Dowd, Milne, & Wise, 1991) contains 28 items scored on a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and was used to assess resistance levels. Sample items included: *I resent authority figures who try to tell me what to do; If I am told what to do, I often do the opposite; and I usually go along with others advice* (reverse scored). The validity, reliability, and normative ranges of the TRS have been verified with a university population. The TRS has a reported internal consistency of 0.75 to 0.84 and a 1-week test-retest reliability of 0.76. Convergent validity has been demonstrated with the TRS showing a significant positive correlation with the internality score on the Rotter scale. This corresponds with previous research, which found a similar positive relationship between measures of reactance and internal locus of control (Brehm & Brehm, 1981). Divergent validity was found with the TRS exhibiting no significant correlations with the Expertness and Trustworthiness subscales of the Counselor Rating Form—Short, State-Trait Anxiety Inventory, and the Beck Depression Inventory (see Dowd et al., 1991). For the present study, the TRS demonstrated a reliability of 0.76.

Dependent Variables

Counselor credibility. The Counselor Effectiveness Rating Scale (CERS) was used to measure therapist credibility (Atkinson & Wampold, 1982). Counselor credibility refers to client beliefs in the adequacy of a counselor's knowledge and skills to deal with the client's problems effectively. The CERS is a 10-item measure of perceived counselor credibility. Respondents are asked to mark an "X" on a seven-point scale (1 = *bad*; 7 = *good*) indicating how they felt regarding various counselor qualities such as *expertness, competence, sincerity, and trustworthiness*. Atkinson and Wampold (1982) reported a coefficient alpha of 0.90 suggesting good internal consistency. Atkinson and Wampold (1982) reported a correlation of 0.80 between the CERS and Counselor Rating Form (CRF; Barak & LaCrosse, 1975) another measure of counselor credibility. The CERS yielded an alpha coefficient of 0.87 in the current study.

Working alliance. The Working Alliance Inventory—Short Version (WAI-S; Tracey & Kokotovic, 1989) was used to assess perceptions of the working alliance. The WAI-S is a 12-item abridged form of the original 36-item Working Alliance Inventory (Horvath & Greenberg, 1989) and assesses three components of the working alliance (i.e., task, bond, and goal). Items are scored on a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items included: *We agree on what is important for me to work on; The counselor and I trust each other; I am confident in the counselor's ability to help me.* The WAI-S has

demonstrated an overall satisfactory reliability estimate as well as adequate reliabilities for the task, bond, and goal subscales (0.93; 0.90; 0.88; and 0.91, respectively). In addition, the WAI-S has been shown to be highly correlated with similar measures of working alliance and to be predictive of treatment outcomes (see Horvath & Symonds, 1991). In this study, the WAI-S yielded an alpha coefficient of 0.89.

Control Variables

To check whether participant engagement was comparable across the therapy conditions, the following two items were assessed on a Likert scale ranging from 1 (*not at all*) to 10 (*very much*): (1) How easy is it for you to imagine being in a similar situation? and (2) How easy it is for you to imagine coming in for therapy?

Therapy Conditions

Directive and nondirective approaches were depicted by professionally enacted sessions from an APA videotape series, *Psychotherapy Series I: Systems of Psychotherapy* (APA, 1994). The video series display prominent experts conducting therapy. Sessions are unscripted and professional actors portray clients based upon actual case materials. The nondirective condition was represented by the simulated demonstration of *Process Experiential Psychotherapy*, whereas the directive condition was represented by *Prescriptive Eclectic Therapy*. Therapists and clients in both conditions were male and European American. Participants were shown approximately 10 minutes of the beginning segment of the therapy session.

Manipulation Checks

Four raters (1 Asian American, 2 European Americans, 1 Middle Eastern American) trained in the Systematic Treatment Selection (STS) Rating Scale (Beutler & Harwood, 2000) assessed the directiveness level of the two therapy approaches. The directive therapy condition was rated as significantly greater in directiveness, $t(6) = -5.88$, $p < .01$, and behavioral focus, $t(6) = -5.96$, $p < .01$, and significantly less emotion-focused, $t(6) = 3.20$, $p < .05$, than the nondirective approach. No significant differences in ratings of therapist activity ($p = .71$), client activity ($p = 1.00$), therapist skill level ($p = .26$), and therapeutic alliance ($p = .24$) were found.

In addition, participants rated the perceived directiveness of the therapy conditions with the following questions from the STS Rating Scale: (1) How often was the therapist confrontational during the session? (2) How often did the therapist provide information to or teach the client? (3) How much did the therapist introduce the topic or initiate a change in topic? (4) The therapist passively accepts client's feelings and thoughts. Total mean scores of the four items revealed that the directive approach was rated as significantly more directive than the nondirective approach, $t(6) = 3.20$, $p < .05$.

Procedure

Participants were assigned randomly to either the directive or nondirective approach. The following questionnaires were then

completed: Demographic measure, EAC-B, MSTAT-I, and TRS. Measures were administered in randomized order with the exception of the demographic questionnaire. After completing the measures, participants were shown a videotape of the assigned therapy condition and then completed the CERS, WAI-Client, previous therapy and therapist understandability questions, control and manipulation check items.

Analyses

To establish mediation, according to Baron and Kenny (1986), regression equations must be conducted to verify significant associations between: (1) the independent variable and the mediator, (2) the independent and dependent variable, and (3) the mediator and dependent variable controlling for the effects of the independent variable. In addition to meeting the aforementioned conditions, a substantial reduction in the effect of the independent variable on the dependent variable must occur when the mediator is added. To test for significant reductions, the Sobel test was used (MacKinnon, Warsi, & Dwyer, 1995; Preacher & Leonardelli, 2001; Sobel, 1982). Under the necessary conditions for mediation, analyses were conducted only for the hypothesized mediator variables that were significantly correlated with both ethnic group membership and the dependent variables.

To establish moderation, hierarchical regression analyses were conducted using only those predictors and interaction terms that were significantly correlated to the dependent variables. Interaction terms were formed according to the procedures recommended by Cohen, Cohen, West, and Aiken (2003).

Results

Analyses were conducted to test the following main hypotheses: (1) Whether Asian Americans rated the therapy films lower in counselor credibility and working alliance than European Americans, and whether therapist understandability and previous therapy

experience accounted for such ethnic group differences; (2) Whether the client dimensions, expectations for directive therapy, ambiguity tolerance, and resistance moderated initial perceptions of counselor credibility and working alliance across the nondirective and directive therapy approaches.

Ethnic Group Comparisons

Correlational analyses between sociodemographic, mediator, moderator, and outcome variables are shown in Table 1. Demographic items (i.e., age, gender, socioeconomic status) were not significantly correlated to the outcome variables. However, ethnic group membership was significantly associated with the outcome variables. General linear model (GLM) multivariate tests were used to assess for ethnic group differences across demographic, independent, and dependent variables (see Table 2). In terms of demographics, Asian Americans had significantly lower generation levels, years in the United States, and socioeconomic status than European Americans. Significant ethnic group differences were found on initial responses to the therapy approaches. Asian Americans reported significantly lower ratings of perceived counselor credibility and working alliance than European Americans.

Significant ethnic group differences were also found on previous therapy experience. A significantly greater proportion of European Americans had previous therapy experience compared with Asian Americans (63% and 24%, respectively), $\chi^2(1, N = 189) = 28.28, p < .001$. Of those who had previous therapy experiences, an analysis of variance indicated that the average number of sessions attended was significantly lower for Asian Americans ($M = 6.52; SD = 15.06$) than for European Americans ($M = 24.44; SD = 35.22$), $F(1, 83) = 5.09, p = .03$. Furthermore, Asian Americans rated the counseling approaches significantly less similar to their own therapy experiences ($M = 3.62; SD = 3.03$) than European Americans ($M = 5.25; SD = 2.77$), $F(1, 83) = 5.25, p = .02$. For the moderator variables, compared with European Amer-

Table 1
Intercorrelations Among Demographic, Predictor, and Outcome Variables

Variable	Age	Sex	Eth	Gen	SES	Yrs US	Exp	Tol	Res	Und (T)	TX Exp	Sess	Similar	CERS	WAI
Age	—														
Sex	.09	—													
Eth	-.02	-.05	—												
Gen	-.07	.03	-.72***	—											
SES	.04	.09	-.21**	.21**	—										
Yrs US	.29***	-.01	-.35***	.48***	.01	—									
Exp	.00	.15*	-.04	-.05	.06	-.09	—								
Tol	.10	.21**	-.23**	.15*	-.06	.09	.05	—							
Res	.05	.21**	-.22**	.19**	-.06	.18*	-.10	.37***	—						
Und (T)	-.05	-.07	-.22**	.09	.11	.02	-.01	.04	.04	—					
TX Exp	.07	-.05	-.39***	.25**	.03	.18*	-.02	.12	.22**	.05	—				
Sess	.27***	-.10	-.29***	.27***	.14	.28***	-.03	-.04	.07	.07	.42***	—			
Similar	-.01	-.01	-.24*	.32**	-.03	.14	.03	-.11	-.06	.33**		.18	—		
CERS	-.07	.07	-.24**	.15*	.14	.04	.15*	.01	-.03	.47***	.06	.01	.19	—	
WAI	-.01	.09	-.24**	.11	-.05	.00	.13	-.01	-.09	.45***	.02	.10	.29**	.61***	—

Note. Eth = ethnicity (European American = 0; Asian American = 1); Gen = generation; SES = socioeconomic status; Yrs US = Years in U.S.; Exp = expectations; Tol = ambiguity tolerance; Res = resistance; Und (T) = therapist understandability; TX Exp = prior therapy experience (Yes = 1; No = 0); Sess = past therapy sessions; Similar = similarity to own therapy experiences; CERS = counselor credibility; WAI = working alliance.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2
General Linear Model Multivariate Test for Ethnic Group Differences on Demographic, Predictor, and Outcome Variables

Variable	Asian Americans (<i>n</i> = 85)		European Americans (<i>n</i> = 97)		<i>F</i>	<i>P</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Age	21.31	2.79	21.66	5.53	0.26	.609
Generation	1.62	0.79	3.89	1.35	173.628	.000
Years in U.S.	15.96	6.75	20.46	6.34	20.64	.000
SES	57.06	26.09	67.38	20.56	8.56	.004
Therapist understandability	3.09	0.82	3.47	0.86	5.25	.024
Expectations	4.12	1.28	4.15	0.95	0.03	.864
Ambiguity tolerance	4.16	0.67	4.43	0.76	6.02	.015
Resistance	2.50	0.29	2.61	0.24	7.01	.009
Counselor credibility	4.18	0.89	4.66	1.06	10.29	.002
Working alliance	4.15	0.99	4.67	0.95	12.54	.001

icans, Asian Americans displayed lower levels of ambiguity tolerance and resistance. However, no significant ethnic group differences were found on expectations for directive therapy.

Mediation Analyses

Counselor credibility. Of the hypothesized mediators, only therapist understandability met criteria for mediation analyses. As seen in Figure 1, regression analyses for therapist understandability met the requirements for tests of mediation. The Sobel test indicated significant reductions in the effect of ethnic group membership on counselor credibility when therapist understandability was included ($z = -2.79$; $p = .005$). However, only a partial mediation model was supported given that the effects of ethnic group membership, though significantly reduced, remained significant after controlling for therapist understandability.

Working alliance. For therapist understandability, regression analyses met the criteria required for mediation tests (see Figure 2). According to the Sobel test, a significant reduction between ethnic group membership and working alliance occurred with the addition of therapist understandability ($z = -2.76$; $p = .006$). Only a partial mediation model was supported.

For similarity to previous therapy, regression analyses also satisfied requirements for mediation testing. Self-identifying as Asian American was associated with significantly lower ratings of

working alliance ($\beta = -0.24$; $p < .01$) and of similarity to previous therapy experiences ($\beta = -0.24$; $p < .05$). Controlling for ethnic group membership, similarity to previous therapy was significantly and positively related to perceptions of working alliance ($\beta = 0.27$; $p < .05$). The Sobel test, however, revealed no significant reduction in the association between ethnic group membership and working alliance when similarity to previous therapy was added ($z = -1.66$; $p = .10$), thereby suggesting the absence of a mediation effect.

Moderation Analyses

Counselor credibility. Of the hypothesized moderators and interactions, only expectation for directive therapy was significantly correlated to counselor credibility. Thus, expectations for directive therapy, ethnic group membership, and therapy approach were entered as main effects in the first step. Even though therapy condition was not significantly correlated to counselor credibility, it was included to conduct a more conservative test of the interaction effect (Cohen et al., 2003). In the second step, the interaction between ethnic group membership and therapy condition was entered. In the final step, the interaction between expectations for directive therapy and therapy approach was included.

As seen in Table 3, the final regression model yielded a significant interaction effect between expectations for directive therapy and therapy condition. Figure 3 displays the specific interaction using a median split to create high and low groups on expectations for directive therapy. Simple main effects analyses indicated that participants with high expectations for directive therapy ascribed greater counselor credibility to the directive approach ($M = 4.64$; $SD = 1.00$) than to the nondirective approach ($M = 4.19$; $SD = .96$), $t(102) = -2.33$, $p < .05$. However, participants with lower levels of expectations for directive therapy did not rate the two therapy conditions differently on counselor credibility, $t(82) = -1.67$, $p = .87$.

Working alliance. None of the hypothesized moderators nor their interactions were significantly correlated with working alliance.

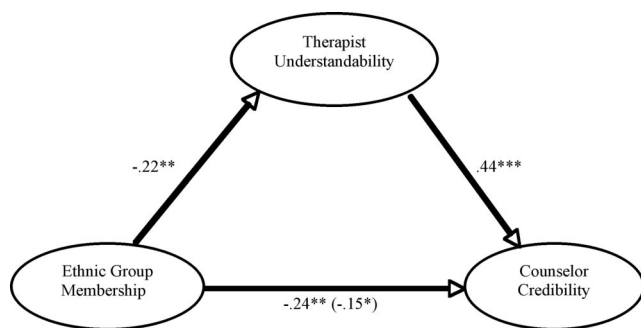


Figure 1. Mediating effect of therapist understandability on the relationship between ethnic group membership and counselor credibility. Mediating effect is in parentheses. For ethnic group membership, White = 0; Asian = 1. * $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

The potential usefulness of examining the mediating and moderating role of important factors cited by CSTs is highlighted by

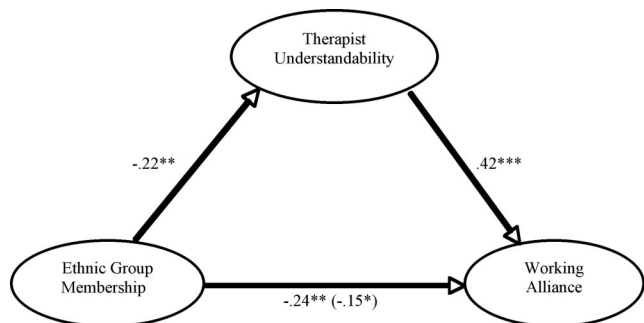


Figure 2. Mediating effect of therapist understandability on the relationship between ethnic group membership and working alliance. Mediating effect is in parentheses. For ethnic group membership, White = 0; Asian = 1. * $p < .05$. ** $p < .01$. *** $p < .001$.

this study's findings. This study explored whether Asian and European Americans differed in their initial perceptions of therapy, and whether therapist understandability and previous therapy experience would explain observed ethnic group differences. When exposed to professionally simulated counseling approaches, Asian Americans ascribed significantly lower ratings of counselor credibility and working alliance than European Americans. Ethnic group differences on initial responses to the counseling approaches were partially explained by therapist understandability but not by previous therapy experiences. Evidently, Asian Americans found the counselors less easy to understand, which in turn were related to lower ratings of counselor credibility and working alliance.

Findings suggest that Asian Americans' initial responses may be particularly influenced by how well they are oriented to the counseling process. Asian American clients who are less familiar with counseling may benefit from greater education about the different components of counseling and how the counseling process relates to their presenting concerns. Lambert and Lambert (1984) assigned

Table 3
Hierarchical Regression for Variables Predicting Counselor Credibility (N = 182)

Variable	B	SE B	β
Step 1			
Expectations for directiveness	0.12	0.06	.14
TA ^a	0.22	0.14	.11
Ethnic group membership ^b	-0.16	0.05	-.23**
Step 2			
Expectations for directiveness	0.12	0.06	.13
TA	0.21	0.35	.10
Ethnic group membership	-0.16	0.15	-.24
Ethnic group membership \times TA	0.01	0.10	.01
Step 3			
Expectations for directiveness	-0.25	0.19	-.28
TA	0.18	0.35	.09
Ethnic group membership	-0.18	0.15	-.26
Ethnic group membership \times TA	0.01	0.09	.03
Expectations \times TA	0.25	0.13	.44*

Note. TA = treatment approach.
^a0 = nondirective; 1 = directive; ^b0 = European American; 1 = Asian American. $R^2 = .09$ for Step 1; $\Delta R^2 = .00$ for Step 2; $\Delta R^2 = .02$ for Step 3.
 * $p < .05$. ** $p < .01$.

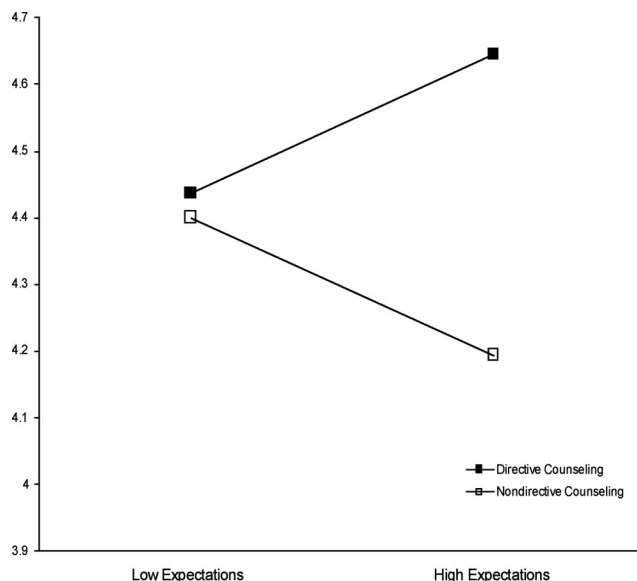


Figure 3. Moderating effect of expectations for directive therapy on perceived counselor credibility across directive and nondirective counseling approaches.

immigrant clients with no previous counseling experience to either a therapy preparation intervention or a placebo intervention before the start of counseling sessions. Clients receiving the therapy preparation reported greater duration of treatment, self-reported change, and counseling satisfaction. The lack of significant mediating effects for previous therapy experience may have been due to the fact the quality of previous therapy experiences were not assessed. Having previous therapy experiences may aid in orienting one to treatment, however depending on whether the experiences are perceived as positive or negative in nature may affect perceptions of counselor credibility and working alliance.

Another major focus of this study was to examine whether the client dimensions, expectations for directive therapy, ambiguity tolerance, and resistance, moderated initial responses across directive and nondirective therapy approaches. Moderating effects were found solely for the client dimension expectations for directive therapy. Expectations for directive therapy moderated counselor credibility perceptions across the directive and nondirective therapy conditions. Specifically, individuals with high expectations for directive therapy rated the counselor in the nondirective approach as significantly less credible than the counselor in the directive approach. In contrast, individuals with low expectations for directive therapy did not rate the two approaches significantly different from one another. Unexpectedly, none of the client dimensions moderated initial perceptions of working alliance.

Of interest, significant ethnic group differences were found on ambiguity tolerance and resistance; however, these client dimensions did not moderate initial responses to the counseling approaches. Thus, observed ethnic group differences may provide a beneficial starting point for CST guidelines, but it is necessary to examine the impact of these observed differences within a counseling context. For instance, given that Asian Americans have been shown to have lower ambiguity tolerance than European Americans, it has been suggested that less structured therapy may be

problematic for Asian Americans (Leong, 1986). However, in the present study, even though Asian Americans exhibited lower ambiguity tolerance than European Americans, when examined within a counseling context ambiguity tolerance did *not* account for ethnic group differences in initial responses to directive and nondirective approaches. Sue and Sue (1999) note a number of domains where a traditional Asian American client may differ from a Western-trained therapist (e.g., collectivism, emotional restraint), yet unless these ethnic group differences are examined within a counseling context it is unknown whether or how these differences impact therapy.

Furthermore, although no significant ethnic group differences were found on the client dimension expectation for directive therapy, it did moderate counselor credibility perceptions suggesting its importance for both Asian and European Americans. Garfield (1986) found that clients were significantly less likely to return to treatment if they held inaccurate expectations of the therapist role. Thus, guidelines for culturally sensitive therapy may contain both elements that may be specific to Asian Americans as well as elements that may be universally applicable to the general population. Although not examined in the present study, a great deal of within group variability exists within Asian and European American groups, assessing for the moderating effects of client dimensions may address such heterogeneity.

The lack of significant findings for the moderating effects ambiguity tolerance and resistance may have been due to procedural limitations. The analogue nature of this study only approximates processes within an actual therapy situation. The viewing of videotaped simulated therapy sessions may have been limited in its ability to create a more realistic experience particularly given its relatively short duration. In addition, participants were not seeking treatment nor presenting with specific clinical problems. The reliance on nonclinical participants and initial perceptions of counseling as opposed to actual counselor credibility and therapeutic relationship effects within a clinical setting may have been insufficient in replicating previous studies which have demonstrated significant benefits from optimally matching on client resistance and therapy directiveness (Beutler et al., 2000). Another limitation of the present study was the use of single-item scales to assess the mediating effects of therapist understandability and previous therapy experience. Future studies using more comprehensive, psychometrically valid and reliable measures are needed to further clarify the nature of previous therapy experiences as well as aspects of the therapist that individuals found difficult to understand.

A strength of the present study is its focus on specific client dimensions rather than demographic factors such as ethnic group membership. Guidelines issued by the APA (2003) on multicultural education, training, research, practice, and organizational change emphasize the examination of psychological factors associated with race, ethnicity, and culture instead of related demographic variables. Furthermore, using mediation and moderation models to test assumptions underlying CST guidelines may provide a framework that non-CST researchers may be more familiar with. In fact, ATIs are based on a moderation model and have already been recognized as a "Demonstrably Effective" means to customizing therapy (Akerman et al., 2001). Evidence for the efficacy of ESTs and CSTs with ethnic minority populations is

sorely needed, greater collaboration between EST and CST researchers may help address this gap (Hall, 2001).

ATIs alone, however, may not fully capture important cultural influences on therapeutic processes and outcomes. For instance, even with the "right" interventions, cultural mistrust between an ethnically mismatched therapist and client may still arise (Terrell & Terrell, 1984). Thus, the examination of cultural processes that may mediate ethnic group and within group variations in counseling process and outcome is also vital in developing CSTs.

An individual's sociocultural makeup and experience can impact therapy in multitudinous ways, all of which may need to be addressed to achieve successful outcomes. Guidelines for CSTs are often based on longstanding assumptions that need to be examined within a counseling context. Identifying mediating and moderating factors that influence counseling process and outcome is one way to test these assumptions.

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