

# Understanding the Psychological Processes of the Racial Match Effect in Asian Americans

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Some studies on mental health outcomes research have found that when clients and therapists are ethnically or racially matched, this tends to be related to greater satisfaction and better outcomes. However, the precise underlying mechanism for the match effect has not been extensively examined. In this experimental study, we tested the effect of racial match on critical counseling processes (i.e., therapist credibility and the working alliance) using a sample of 171 Asian American respondents. We also examined Asian ethnic identification as a potential moderator of the racial match effect. Structural equation modeling analyses indicated that racially matched individuals perceived greater experiential similarity with the therapist than nonmatched individuals, and experiential similarity was positively associated with therapist credibility. Although racial match did not predict attitudinal similarity, attitudinal similarity was strongly related to the working alliance and therapist credibility. Counseling implications are discussed.

*Keywords:* racial match, similarity, alliance, credibility, Asian Americans

The U.S. Surgeon General's Report (U.S. Department of Health and Human Services, 2001) acknowledged that racial and ethnic minority persons were underserved and ineffectively served by mental health professionals. Whereas over half of the general population experiencing mental disorders seeks mental health services, only less than one third of Asian Americans experiencing mental disorders do so (Meyer, Zane, Cho, & Takeuchi, 2009). Research has consistently shown that disparities exist in terms of higher premature termination rates and shorter treatment stays for Asian Americans (Zane, Enomoto, & Chun, 1994). Zane et al. (1994) suggested that the disparities in service utilization most likely occur in the early stages of treatment. Therefore, it is important to examine what is most beneficial for Asian Americans at the outset of mental health treatment.

For mental health clients, the initial impression of a counselor is critical in dictating how the client perceives the counselor for the duration of their interactions (Spiegel, 1976). Much research has demonstrated that initial encounters between individuals are critical points in relationships, and if individuals anticipate that future contacts will not be rewarding, they are likely to terminate their relations with others (e.g., Berscheid, 1985). A mental health client

may form a judgment about a counselor on the basis of very little information, such as the counselor's race. Ward (2005) found that the counselor's race was the first feature clients attended to in a counseling session. Racial match among minority clients may increase the likelihood that clients will continue in treatment because it shapes how they interpret the therapist and the ensuing treatment. For ethnic minority clients, the counselor's race could convey enough information for clients to form a stable impression of the counselor. This is consistent with social categorization theory, indicating that individuals form judgments on the basis of the available information at a given time (Hogg & Turner, 1985).

Some empirical studies have shown racial match to be associated with increased utilization, favorable treatment outcomes (i.e., global assessment scores, substance use reduction), and lower treatment dropout (Flaskerud, 1986; Flaskerud & Liu, 1991; Flicker, Waldron, Turner, Brody, & Hops, 2008; Gamst, Dana, Der-Karabetian, & Kramer, 2001; O'Sullivan & Lasso, 1992; S. Sue, Fujino, Hu, Takeuchi, & Zane, 1991; Wu & Windle, 1980). Several analogue studies demonstrated a positive relationship between racial match and counseling process variables, such as counselor credibility and counselor empathy (Gim, Atkinson, & Kim, 1991; Sladen, 1982). However, other studies have demonstrated no effect of racial match on treatment processes (Watkins, Terrell, Miller, & Terrell, 1989) or treatment outcomes (Fiorentine & Hillhouse, 1999; Gamst, Dana, Der-Karabetian, & Kramer, 2004).<sup>1</sup>

One potential reason for the conflicting findings in previous research involves the use of different outcome measures. Racial

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<sup>1</sup> Studies reviewed in this article include both racial and ethnic match studies. Researchers have noted that race and ethnicity are two different constructs (e.g., Helms & Talleyrand, 1997). For the purposes of this article, however, we are using race to encompass ethnicity (e.g., within the Asian race, Chinese are a specific ethnic group).

match studies have included both indirect measures of outcomes (such as number of sessions, dropout from therapy, and client ratings) as well as direct measures of outcomes (such as symptom improvement). Because the disparities in mental health services for Asian Americans seem to occur early on in treatment (e.g., dropout after one session), counseling process variables seem to be the most appropriate measure for studying the racial match effect. Another possible reason for the discrepant findings involves a failure to examine mediators and moderators. Ethnic match is presumably more distal from outcomes (S. Sue & Zane, 1987). However, ethnic match may affect attitudes and expectancies, which may then directly influence outcomes. Lastly, the aggregation of Asian Americans without considering individual differences such as ethnic identity or acculturation level may have led to the conflicting findings of previous match studies.

### The Current Study

The various methodological and conceptual problems in some previous match studies make it difficult to state definitively what effect racial match has in counseling (Bryan, Dersch, Shumway, & Arredondo, 2004). Even when match does lead to favorable outcomes, it is unclear how it operates. Zane et al. (2005) argued that other variables are more important and proximal to satisfaction and outcomes, but these mediators of match have not been extensively studied. What specifically is the underlying psychological mechanism for the racial match effect? Additionally, is the racial match effect stronger for certain groups? The current study seeks to answer these questions by proposing and testing a social psychological model of racial match and therapy process variables. Exploring the more proximal variables related to match and examining the role of within-group differences in match effects may help resolve the conflicting findings of previous literature.

Because racial match may be central during the initial phases of treatment (Fujino, Okazaki, & Young, 1994), it may have its greatest impact on therapy process variables, such as the working alliance and therapist credibility—two variables that are robustly related to long-term treatment outcomes (Horvath & Symonds, 1991). Counselor credibility is the degree to which a counselor and the interventions used are seen as effective and valid. Credibility should be established early on in treatment, especially for ethnic minorities who may not view therapy as a valid means of treating one's emotional problems (S. Sue & Zane, 1987). The working alliance has been referred to as "the collaborative and affective bond between therapist and patient" (Martin, Garske, & Davis, 2000, p. 438). The working alliance is a consistent and robust predictor of patient improvement across a variety of psychotherapies and clinical problems (Constantino, Arnow, Blasey, & Agras, 2005; Horvath & Symonds, 1991). Even ratings of the working alliance early on in treatment are strongly related to final therapy outcomes (Luborksy, Crits-Christoph, Mintz, & Auerbach, 1988).

The purpose of this study was to experimentally test the effect of racial match on therapist credibility and the working alliance and to determine whether this effect was mediated by perceived similarity and perceived support. Moreover, ethnic identity was tested as a potential moderator of the relationship between racial match and the process variables.

### Perceptions of Similarity

To date, very little research has indicated what variables might explain how racial match operates. We propose that perceived similarity is a viable mediating mechanism of racial match's effect on counseling process variables. Individuals may attribute similar beliefs and attitudes to counselors who are similar to them in racial background. This idea is supported by social categorization theory and reinforcement theory, in that individuals who view another as being in the same social category as they are motivated to perceive this person as being similar to them. Simons, Moyer, and Berkowitz (1970) suggested that the primary function of in-group similarities is in serving as a form of indirect suggestion. That is, individuals may infer attitudinal similarities from evidence of membership similarities (e.g., because the counselor and I are both Chinese, she must share my concern about . . ."). Kim and Atkinson (2002) found that Asian American clients who saw an Asian American counselor gave significantly higher similarity ratings than Asian American clients who saw a European American counselor. Thus, it appears that perceptions of similarity in other areas (e.g., attitudes, life experiences) may be inferred from racial match.

The perception of similarity has been linked to a variety of positive social psychological outcomes. Not only are people attracted to similar others but they also prefer to interact with them compared with dissimilar others (Cushman, Valentinsen, & Dietrich, 1982). Researchers have posited that one prefers similar others because they tend to validate one's own attitudes and beliefs (Byrne, Nelson, & Reeves, 1966). Interactions with perceived similar others also can create an illusion of understanding and can provide a sense of security and predictability. Subsequently, it seems reasonable to assume that perceived similarity could be critical in influencing therapist–client interactions. Mental health clients, in particular, want to be validated and to feel secure in counseling. Therefore, they may search for and attend to cues of similarity, such as race, to obtain this reassurance and support. As such, we hypothesize that racial match affects the working alliance and therapist credibility, and this effect is mediated by client perceptions of similarity to the counselor.

### Perceptions of Support

Research has shown a strong link between perceived similarity and perceived supportiveness. Perceived support is the belief that support is available from another person. It is not the reflection of actual supportive behaviors but instead is the confidence that support is obtainable (Heller & Lakey, 1985). Similarity between perceivers and providers in attitudes and values has been shown to be a strong determinant of judgments of support (Lakey, Ross, Thompson, Butler, & Bentley, 1996). Because it could be argued that supportive judgments influence similarity judgments, Lakey et al. (1996) manipulated similarity in their experimental study, and they found that similarity judgments predicted supportiveness judgments. Their study demonstrated that perceived similarity had a causal role in perceptions of support.

Several studies have demonstrated a relationship between perceived support and the working alliance in therapy contexts. Two studies showed that clients with lower perceived support had lower quality working alliances with their therapists than did clients with

higher perceived support (Mallinckrodt, 1991). Furthermore, Mallinckrodt (1996) found that client perceptions of the working alliance were significantly related to perceived support. Although these studies examined perceptions of supportive individuals in one's life in general (and not from a therapist), they demonstrate the robust relationship between perceived support and therapy processes. A more recent study demonstrated that the working alliance and therapist credibility were strongly related to perceived support (Lakey, Cohen, & Neely, 2008). On the basis of this previous research, we hypothesize that the similarity effect on therapist credibility and the working alliance is mediated by perceived support.

### Ethnic Identity as a Moderator of Racial Match

Racial match has been found to be effective only in certain situations or for certain clients (Flaskerud, 1990). Thus, it may be specific characteristics of the individual client that moderate the effect of racial match; one possibility is ethnic identity. Ethnic identity is "that part of an individual's self-concept that derives from his (or her) knowledge of membership in an ethnic group together with the value and emotional significance attached to that membership" (Tajfel, 1981, p. 225). A limitation of much of the racial match research is that it assumes that race will directly affect client judgments of the therapist. However, individuals low on ethnic identity may not perceive that their race has any salient impact on their everyday lives, whereas for individuals high on ethnic identity, race may be a prominent aspect of their lives. As such, it is hypothesized that the effects of racial match are moderated by the client's ethnic identification (D. Sue, Mak, & Sue, 1998). Because ethnicity cues may be more salient for those who are highly ethnically identified, the racial match effect on perceptions of similarity may be greater for these individuals relative to those who are less ethnically identified.

### Hypothesized Model for the Effects of Racial Match

On the basis of the similarity and support literature, we propose that a "match-similarity" model (Model 1) can explain the effects of racial match on counseling process variables. The model posits

that the underlying mechanism for the racial match effect is perceived similarity (see Figure 1). As stated earlier, we hypothesize that racial match leads to perceived similarity and that perceived similarity leads to a stronger working alliance and greater therapist credibility. However, this is an indirect path, in that perceived support is the mediating variable between similarity and the process variables. Thus, similarity might matter only to the extent that it is related to greater support. Alternative models were also estimated and evaluated to determine the exact processes underlying racial match. Finally, ethnic identity was tested as a moderator of the racial match effect on perceived similarity.

## Method

### Participants

One hundred and seventy-one undergraduates from a large West Coast university participated in the study. Participants were recruited through the Psychology subject pool and received course credit for 1 hr of participation. The majority of participants were female (78.9%), and ages ranged from 17 to 24 years ( $M = 18.94$ ,  $SD = 1.29$ ). Only Asian American participants were eligible to participate because we wanted to explain the mechanism for racial match that has been found in previous research (Gamst et al., 2001; S. Sue et al., 1991). The study consisted of approximately 54% Chinese, 20% Vietnamese, 11% Korean, 4% Japanese, and 11% Southeast Asians (i.e., Hmong, Mien, Laotian, Cambodian). Approximately 67% of the sample was born in the United States.

### Procedure

Racial match was experimentally varied by randomly assigning participants to either a racially matched or racially unmatched condition in terms of the counselor's race (matched,  $n = 87$ ; unmatched,  $n = 84$ ). As a check on the manipulation, participants were asked to identify the race of their counselor. All participants correctly identified the Asian counselor in the match condition and the White counselor in the nonmatch condition. Participants were also randomly assigned to a gender match and unmatched condi-

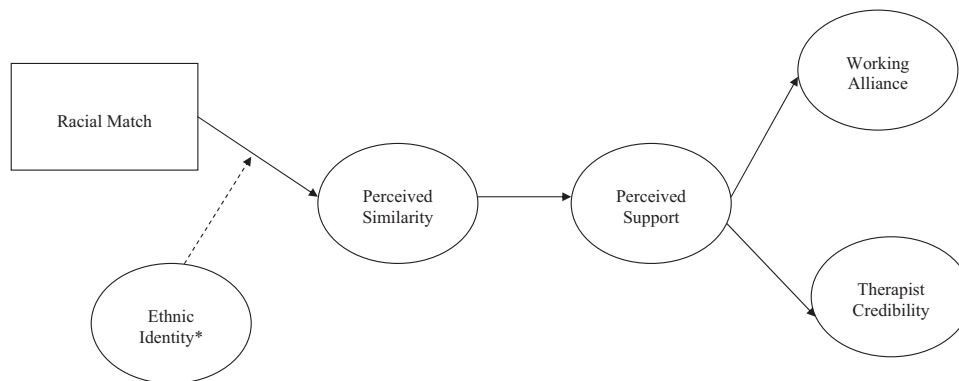


Figure 1. Model 1, the "match-similarity" model, illustrates the proposed structural model from racial match to the working alliance and therapist credibility. An asterisk indicates the addition of ethnic identity as a proposed moderator in Model 5. A dotted path indicates the interaction effect of racial match and ethnic identity on perceived similarity.

tion.<sup>2</sup> An Asian research assistant conducted the experiment, which was run in groups that typically consisted of 2–3 individuals. Each individual had his/her own computer station. Participants were given a compact disc and told that they were going to listen to a 6-min counseling session between a “counselor in training” and his/her patient. Inside the disc cover, participants saw a photograph of a White male, a White female, an Asian male, or an Asian female and were told that he/she was the counselor in the audio (both the counselor and client role were played by actors).

Both White and Asian therapists featured in the photographs ranged in age from their late twenties to early thirties. Photographs had been pilot tested for attractiveness prior to the study, and there were no significant differences between the White photographs ( $M = 2.69$ ,  $SD = 0.80$ ) and the Asian photographs ( $M = 2.35$ ,  $SD = 0.85$ ;  $p = .08$ ).<sup>3</sup> The script for each counseling session was identical, and the male and female counselor voice was the same in all conditions. The topic discussed was a common one for most college students—concerns about course overload and stress. Participants were told to imagine as if they were the client in the session. After listening to the audio, participants completed ratings of the counselor and the ethnic identity measure.

## Measures

**Counselor credibility.** Counselor credibility was assessed via the Counselor Effectiveness Rating Scale (CERS; Atkinson & Wampold, 1982). The CERS is a 10-item semantic differential questionnaire on which respondents rate counselors in terms of expertness, trustworthiness, attractiveness, and utility (willingness to see the counselor for counseling) on a 9-point bipolar scale (i.e., 1 = *bad*, 9 = *good*).<sup>4</sup> Each of the first three dimensions consists of three concepts (e.g., attractiveness consists of friendliness, approachability, and likeability). The fourth dimension consists of a single concept, counselor utility (i.e., “someone I would see for counseling”). Previous studies have shown that the three dimensions of expertness, trustworthiness, and attractiveness are highly correlated (Akutsu, Lin, & Zane, 1990; Atkinson & Wampold, 1982), indicating that the CERS reflects a single dimension of an overall rating of counselor credibility. In a sample of university students, the CERS had established reliability ( $\alpha = .90$ ) and good concurrent validity with the Counselor Rating Form, another measure of counselor expertness, trustworthiness, and attractiveness (Atkinson & Wampold, 1982; Barak & LaCrosse, 1975). Coefficient alpha of the CERS was .94 in the current study.

**Working alliance.** Client–counselor working alliance was assessed via participant self-report using the 12-item Working Alliance Inventory–Short Form (WAI-SF; Tracey & Kokotovic, 1989). This measure is an assessment of clients’ perceptions of the therapeutic relationship as possessing shared goals, tasks, and an attachment bond (Bordin, 1979). Participants indicate on a 7-point scale the extent to which they agree/disagree with an item (1 = *strongly disagree*, 7 = *strongly agree*). The WAI-SF was developed from a factor analysis by selecting the four highest loading items each from the Task, Bond, and Goal subscales of the original 36-item WAI (Horvath & Greenberg, 1989). A factor analysis of the WAI-SF indicated a similar factor structure compared with the original WAI, and the items primarily measure a general alliance factor, encompassing task, bond, and goal, indicating that the WAI-SF was valid (Tracey & Kokotovic, 1989). Tracey and

Kokotovic (1989) reported a coefficient alpha of .98 in a sample of university counseling clients. Coefficient alpha of the WAI-SF was .93 in the current study.

**Perceived similarity.** Participants rated the perceived similarity of counselors using a modified version of the Perceived Similarity Scale by Lakey et al. (2002). The measure was modified to refer to the therapist as the target of similarity. Some examples from the six-item measure include the following: “The therapist is similar to me in personality,” and “The therapist is similar to me in social class.” Items were rated on a 6-point scale ranging from 1 (*not similar at all*) to 6 (*very similar*). In several studies, perceived similarity was a strong predictor of perceived support (Lakey et al., 2002, 1996). Internal consistencies for the full scale have been reported at  $\alpha = .79$  in other studies with university students. Coefficient alpha of the Perceived Similarity Scale was .87 in the current study.

**Perceived support.** Perceived support was assessed using a modified version of the six-item Support Scale from the Quality of Relationships Inventory (QRI; Pierce, Sarason, Sarason, Solky-Butzel, & Nagle, 1997). Participants were asked to rate the supportiveness of the counselor, using items such as “To what extent do you think you could turn to this counselor for advice about problems?” and “To what extent do you think you could count on this counselor to listen to you when you are very angry at someone else?” Items were rated on a 4-point scale ranging from 1 (*not at all*) to 4 (*very much*). Internal consistencies were reported at  $\alpha = .87$ , indicating good reliability. Evidence of both convergent and discriminant validity has been shown for the QRI in a sample of university students (Pierce et al., 1997). Coefficient alpha of the Perceived Support Scale was .84 in the current study.

**Ethnic identity.** Ethnic identity was assessed using the six-item Multigroup Ethnic Identity Measure–Revised (MEIM-R; Phinney & Ong, 2007). The MEIM-R is designed to assess two components of ethnic identity: affirmation and belonging (two items, e.g., “I feel a strong attachment towards my own ethnic group”) and ethnic identity exploration/achievement (four items, e.g., “I have often done things that will help me understand my ethnic background better”). Items are rated on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) so that higher scores indicate stronger ethnic identity. The measure has a reported reliability of  $\alpha = .90$  with college students. Construct validity has been demonstrated by exploratory and confirmatory factor analyses with independent samples composed of Latino, Asian American, European American, and African American col-

<sup>2</sup> Gender and gender match were not significant in any of the analyses and are not discussed further.

<sup>3</sup> Thirty-nine undergraduates participated in the pilot-testing portion of the study. They consisted of mostly Asian participants and were asked by research assistants to complete a single-item measure of attractiveness on several photographs that were attached to the rating form. No information was given about the purpose of the study, and participants were asked to complete the same attractiveness item for all photographs. In examining each of the four counterbalanced photos, participants read the statement, “The person in the picture seems physically attractive.” The item was rated on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

<sup>4</sup> The original scale is a 7-point bipolar scale; however, during the administration of the CERS, participants misread the instructions and rated items on a 9-point scale.

lege students (Phinney & Ong, 2007). Coefficient alpha of the MEIM-R was .84 in the current study.

### Data Analysis

Structural equation modeling (SEM) was used in M-Plus 4.2 (Muthén & Muthén, 1996–2006) to determine the underlying mechanisms for racial match's effect on counseling process variables. Before implementing SEM, a confirmatory factor analysis (CFA) was conducted to ensure a measurement model with an acceptable fit to the data. Then, a structural model was tested to examine the proposed relations among the constructs of interest. Variants of the proposed model were also tested to specify a model that best fit the data.

The validity of the model was determined by two criteria: path coefficient estimates and overall model fit indices. The overall model fit indices examined were the comparative fit index (CFI), the Tucker–Lewis index (TLI), and the root-mean-square error of approximation (RMSEA). Using the CFI, a model with values above .90 reflects adequate fit to the data, and a model having values above .95 reflects excellent fit (Hu & Bentler, 1998). The RMSEA was also evaluated, for which values below .08 reflect adequate fit, and values below .05 reflect excellent fit (Browne & Cudeck, 1993). The 90% confidence interval (CI) for the RMSEA index provides further confidence in model fit; ideally, the lower value of the CI includes or is very near zero, and the upper value is less than .08. Finally, the TLI was evaluated, for which values between .90 and .95 reflect adequate fit, and values above .95 reflect good fit (Hu & Bentler, 1998). The chi-square statistic is reported but was not primarily used in the interpretation because the models being evaluated were not nested; therefore, a chi-square likelihood test was unavailable. Rather, practical fit indices and information criteria (i.e., Akaike information criterion [AIC] and Bayesian information criterion [BIC]) were employed for model comparisons.

## Results

Results for the measurement models are presented, followed by an analysis of the structural models.

### Measurement Models

Perceived similarity was first examined as a single construct to test whether a general sense of similarity best fit the data. However, in alternative models, similarity was separated into different latent variables because Atkinson and Schein (1986) suggested at least two qualitatively distinct similarity categories: *attitude and value similarity* versus *experience similarity*. One may feel similar to another individual in terms of background and life experiences but may not feel similar in regards to attitudes or values (Suito, Pillemer, & Keeton, 1995). Both types of similarity are positively related to counseling process variables (e.g., credibility), but the results are equivocal when the dependent variables are counseling outcomes (see Atkinson & Schein, 1986, for a thorough review). The model with one latent variable of similarity fit the observed data poorly,  $\chi^2(9, N = 171) = 56.39, p < .01, CFI = .91, TLI = .85, RMSEA = .18$  (90% CI [0.13, 0.22]). Subsequent models tested similarity as two latent constructs. The three items for the

first latent variable of similarity were similarity in values, attitudes, and personality (i.e., “How similar do you feel the counselor is to you in values?” “How similar do you feel the counselor is to you in attitudes?” “How similar do you feel the counselor is to you in personality?”). Similar to Atkinson and Schein's (1986) conceptualizations of similarity, we labeled this construct *attitudinal similarity*. The three items for the second similarity construct included similarity in life experiences, culture, and social class (i.e., “How similar do you feel the counselor is to you in life experiences?” “How similar do you feel the counselor is to you in culture?” “How similar do you feel the counselor is to you in social class?”); this construct was referred to as *experiential similarity*. A CFA indicated that the two-factor solution fit the data well,  $\chi^2(8, N = 171) = 21.59, p < .01, CFI = .97, TLI = .95, RMSEA = .10$  (90% CI [0.05, 0.15]). The RMSEA value indicated a marginally good fit, but this statistic is dependent on degrees of freedom and sample size (Chen, Curran, Bollen, Kirby, & Paxton, 2008). The other fit indices indicated good fit as well as the fact that all of the factor loadings were statistically significant ( $p < .001$ ). It therefore appears that both similarity constructs were adequately operationalized by their respective measured variables.

Item parcels were used in the current study to reduce the number of manifest variables in the scales and to address the problematic issues of using item-level data; these include lower reliability, decreased common factor variance, and increased risk of nonnormality (Bandalos & Finney, 2001; Little, Cunningham, Shahar, & Widaman, 2002). Item parcels are also more likely than individual items to represent the construct of interest (Rushton, Brainerd, & Pressley, 1983). At the same time, Bandalos and Finney (2001) have cautioned against the use of item parcels in constructs that are multidimensional and when the issues of primary concern are measurement (rather than structural) issues. However, the use of domain representative parceling is an effective and sometimes advantageous method for addressing the issue of multidimensionality when constructing item parcels (Little et al., 2002). Therefore, domain representative parceling was employed because this method improves the psychometric properties of scales compared with unidimensional parceling (i.e., using subscales as parcels; Kishton & Widaman, 1994; Little et al., 2002). Parcels were created by conducting exploratory factor analyses on the items from each scale. Each scale's items were then rank-ordered on the basis of the magnitude of their loadings to a corresponding factor. To equalize the average loadings of each parcel on its respective factor, we assigned the highest and lowest ranking items in pairs to a parcel. For detailed techniques regarding the application of parcels, refer to Little et al. (2002) and Bandalos (2008). Three parcels for the latent variables of ethnic identity, perceived support, working alliance, and therapist credibility were created following the recommendation of Coffman and MacCallum (2005) and Little et al. (2002).<sup>5</sup> Table 1 displays the means, standard deviations, and correlations of the full scales.

In the measurement model, no constraint was imposed on the relations among latent variables. In addition, racial match was not introduced in the evaluation of the measurement model. Fitting the measurement model to the observed data produced overall model

<sup>5</sup> Parcel information and parameter estimates can be provided upon request.

Table 1  
*Summary Statistics and Bivariate Correlations Among Variables of Interest (N = 171)*

Variable	<i>M (SD)</i>	Attitudinal similarity	Experiential similarity	Perceived support	Working alliance	Therapist credibility
Ethnic identity	3.88 (0.64)	-.06	-.04	-.08	.02	.04
Attitudinal similarity	3.26 (1.11)	—	.65***	.50***	.45***	.52***
Experiential similarity	3.02 (1.18)		—	.33***	.28***	.41***
Perceived support	2.73 (0.59)			—	.65***	.69***
Working alliance	3.33 (0.78)				—	.65***
Therapist credibility	6.46 (1.32)					—

*Note.* Parcel correlations, factor correlations, and factor variances can be provided upon request.  
 \*\*\* $p < .001$ .

fit indices at an acceptable level, CFI = .95, TLI = .94, RMSEA = .07 (90% CI [0.07, 0.10]), although the chi-square values were statistically significant,  $\chi^2(120, N = 171) = 220.50$ ,  $p < .001$ . All factor loading estimates of indicators for each of the constructs were considerably large ( $\lambda_s > .73$ ), implying that three indicators represented well the corresponding constructs.

### Structural Model

As mentioned earlier, in Model 1, we hypothesized that racial match leads to perceived similarity, which leads to greater support, which subsequently leads to a stronger working alliance and greater therapist credibility. Four alternative models were estimated and evaluated in this study. Model 2 extended Model 1, such that direct effects of similarity on the working alliance and therapist credibility were included. Given the robust relationship between similarity and social psychological outcomes (e.g., Byrne et al., 1966), it may be that similarity in and of itself is enough to lead to a stronger working alliance and greater therapist credibility. Model 3 represented a variation of Model 1, but as a result of the measurement data and previous literature on the similarity construct, the similarity factor was differentiated into two latent variables (i.e., attitudinal similarity and experiential similarity). Model 4 expanded Model 3 by including direct effects of attitudinal similarity and experiential similarity on the working alliance and therapist credibility. Finally, Model 5 was similar to Model 4, but it contained an interaction effect between ethnic identity and racial match (see Figure 1). Again, it may be that racial match plays an important role in therapy processes only for highly ethnically identified individuals (D. Sue et al., 1998).

These five models were evaluated on the basis of three criteria: (1) practical model fit indices, (2) appropriateness of parameter estimates, and (3) parsimony of the models. Fit indices of the five models are presented in Table 2. Among the first four models, Model 4 produced slightly better model fit indices. Models 1, 2, and 3 fit the observed data marginally well, whereas Model 4 better fit the observed data. Specifically, fitting Model 4 to the observed data yielded the following values:  $\chi^2(93, N = 171) = 219.56$ ,  $p < .001$ , CFI = .93, TLI = .91, RMSEA = .08 (90% CI [0.07, 0.10]). No practical fit indices were available for Model 5; thus, information criteria were utilized for model comparison.<sup>6</sup> A model having a smaller information criterion value (e.g., BIC and AIC) is assumed to produce a better model fit to the data. Because Model 4 produced better model fit than Models 1, 2, and 3, it was compared with Model 5. The difference between Model 4 and

Model 5 was the inclusion of an interaction effect between ethnic identity and racial match on the two similarity factors. The interaction effect was not statistically significant for attitudinal similarity ( $\beta = -.05$ ,  $z = -0.31$ ,  $p = .75$ ) or for experiential similarity ( $\beta = -.03$ ,  $z = -0.16$ ,  $p = .87$ ). Moreover, Model 4 produced better model fit than Model 5 (see Table 2); therefore, Model 4 was chosen as the best fitting model and was examined in greater detail.

Parameter estimates for Model 4 are displayed in Figure 2. The effect of match on attitudinal similarity was not statistically significant ( $\beta = .07$ ,  $z = 0.86$ ,  $p = .39$ ), whereas the effect of match on experiential similarity was statistically significant ( $\beta = .39$ ,  $z = 5.07$ ,  $p < .01$ ).

Second, the varying effects of attitudinal similarity and experiential similarity on the working alliance and therapist credibility were examined. Attitudinal similarity had a significant indirect effect on the working alliance and therapist credibility. In other words, attitudinal similarity significantly influenced the level of perceived support ( $\beta = .61$ ,  $z = 4.23$ ,  $p < .01$ ), which in turn yielded significant effects on the working alliance and therapist credibility ( $\beta = .70$ ,  $z = 9.31$ ,  $p < .01$ , and  $\beta = .71$ ,  $z = 10.73$ ,  $p < .01$ , respectively). However, the direct effect of attitudinal similarity on the process variables was not statistically significant (for the working alliance,  $\beta = .11$ ,  $z = 0.76$ ,  $p = .45$ ; for therapist credibility,  $\beta = -.06$ ,  $z = -0.50$ ,  $p = .62$ ).

Third, experiential similarity directly influenced therapist credibility ( $\beta = .29$ ,  $z = 2.42$ ,  $p = .01$ ) but not the working alliance ( $\beta = -.02$ ,  $z = -0.14$ ,  $p = .89$ ). Additionally, the indirect effect of experiential similarity on the process variables through perceived support was not significant because experiential similarity produced no significant change in levels of perceived support ( $\beta = -.05$ ,  $z = -0.35$ ,  $p = .73$ ).

### Testing the Significance of the Indirect Effects

In addition to testing the mediation effects by examining the structural equation model, we used a bootstrap procedure to evaluate the significance of the indirect effects. From the data, 1,000 bootstrap samples were used to compute 95% CIs to determine

<sup>6</sup> When testing the interaction effect between observed and latent variables, the observed covariance matrix and mean vector are not sufficient to compute practical fit indices because the interaction is nonlinear in the model (Klein & Moosbrugger, 2000).

Table 2  
Summary of Model Fit Indices for the Structural Models

Model	Overall $\chi^2$	df	CFI	TLI	RMSEA	90% CI for RMSEA	BIC	AIC
Model 1	289.49	100	.89	.87	.11	[0.09, 0.12]	6,612.87	6,455.78
Model 2	281.62	98	.90	.87	.11	[0.09, 0.12]	6,615.28	6,450.62
Model 3	232.81	97	.92	.90	.09	[0.07, 0.11]	6,571.61	6,405.10
Model 4	219.56	93	.93	.91	.08	[0.07, 0.10]	6,578.93	6,399.85
Model 5							7,211.54	6,991.63

Note.  $N = 171$ . CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root-mean-square error of approximation; CI = confidence interval; BIC = Bayesian information criterion; AIC = Akaike information criterion; Model 1 = “match-similarity model” but without the interaction; Model 2 = Model 1, with direct effects of similarity on the working alliance and therapist credibility; Model 3 = similarity as two latent variables: attitudinal similarity and experiential similarity, predicting the working alliance and therapist credibility, as mediated by perceived support, no interaction; Model 4 = Model 3, with direct effects on working alliance and credibility; Model 5 = Model 4, with the interaction.

whether indirect effects were significantly different from zero, indicating statistically significant mediation (Mallinckrodt, Abraham, Wei, & Russell, 2006; Shrout & Bolger, 2002). Bootstrapping analyses indicated that the total effect of match on the working alliance and credibility was not significant (95% CI [-0.40, 0.46] and 95% CI [-0.04, 1.09], respectively). Furthermore, all indirect effects of racial match on the working alliance were not significant. Only the indirect effect of racial match on credibility through experiential similarity was significant (95% CI [0.18, 0.70]). Additionally, the indirect effect of attitudinal similarity on the working alliance was significant (95% CI [0.32, 1.30]), as was the indirect effect of attitudinal similarity on credibility (95% CI [0.27, 1.46]). Bootstrap analyses confirmed that the indirect effects of experiential similarity on the working alliance (95% CI [-0.42, 0.26]) and credibility (95% CI [-0.45, 0.31]) were not statistically significant.

Effect sizes of racial match and attitudinal similarity were compared to evaluate the relative influence of these two variables on therapist credibility and the working alliance. Interestingly, attitudinal similarity demonstrated a larger influence on the counseling process variables than racial match. Standardized total effects of attitudinal similarity on the working alliance and credibility were 0.54 ( $SE = 0.20, p < .01$ ) and 0.37 ( $SE = 0.21, p = .07$ ), respectively, whereas standardized total effects of racial match on the working alliance and credibility were 0.02 ( $SE = 0.07, p = .81$ ) and 0.12 ( $SE = 0.07, p = .10$ ), respectively.

In sum, the best fitting model demonstrated that participants who heard a counseling session with a racially matched counselor reported greater counselor credibility, and this effect was mediated by experiential similarity but not attitudinal similarity. Racial match did not predict attitudinal similarity, but attitudinal similarity was positively associated with the working alliance and therapist credibility, and this effect was mediated by perceived support. Ethnic identity did not moderate the relationship between racial match and similarity.

Discussion

Client–counselor racial match may be an important factor in successful mental health outcomes because race, especially for minorities, is very salient (Wright & Littleford, 2002). Ward (2005) demonstrated that counselor race was the first feature that ethnic minority clients noticed in a counseling session. This study builds upon previous literature by examining *how* racial match impacts important counseling processes, that is, what the underlying mechanism is for the match effect. Thus far, complex models of counselor–client interactions have not been the focus of research in ethnic minority mental health. Considering that many ethnic minorities may experience fear and distrust when working with mental health professionals, it is important that trust and credibility first be established in the client–counselor relationship (Miranda, Lawson, & Escobar, 2002). In addition, counseling

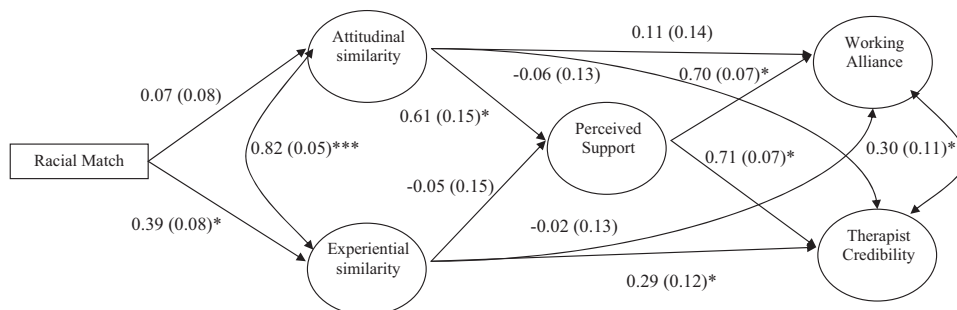


Figure 2. Standardized coefficient estimates of the best model—Model 4. Numbers in parentheses represent the corresponding standard errors, and asterisks indicate statistical significance. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

processes, such as the working alliance and therapist credibility, have been consistently and robustly linked to clinical outcomes (Horvath & Symonds, 1991). Therefore, it is important to determine how these processes are influenced by racial match.

The experimental nature of this study allowed us to directly test whether racial match predicts counseling process variables. Results indicate that racial match influenced how experientially similar participants felt to the therapists, and this resulted in greater therapist credibility. When participants listened to a counseling session between a therapist and client, a mere perception that the therapist shared a similar culture or background as the participant appears sufficient to affect evaluations of therapist credibility.

Exactly how does experiential similarity influence therapist credibility? It may be that an individual facing a certain stressor, such as prejudice or discrimination, perceives another individual who has faced similar obstacles as being better equipped to help him/her than an individual with no experience in this area. Suitor et al. (1995) showed that in two samples, women who were undergoing major life transitions (e.g., becoming a caregiver for an elderly relative) perceived other women as more supportive if they were also undergoing the same transitions.

Research in multicultural counseling has emphasized that establishing credibility in relationships with clients is especially important for diverse populations (S. Sue & Zane, 1987). Furthermore, the effect of counselor credibility on mental health outcomes has been shown in the United States and Taiwan (Akutsu et al., 1990; Wei & Heppner, 2005). Akutsu et al. (1990) examined the relationship between counselor style, credibility, and utilization intent among Chinese National students in Taiwan and White American students in the United States and found that among Chinese individuals, counselor credibility was significantly associated with willingness to initiate and continue treatment beyond the initial session.

It is interesting that attitudinal similarity appeared to affect perceptions of support, which in turn seemed to affect both credibility and the working alliance. Asian Americans who felt similar to the therapist in attitudes, values, and/or personality felt the therapist was more supportive, and this appeared to lead to a stronger working alliance and to greater therapist credibility. This suggests that even counselors not matched to their clients on race can capitalize on other types of similarities (attitudes, values, personality) to enhance the counseling relationship. Zane et al. (2005) showed that client–therapist similarities in problem perception, coping orientation, and treatment goals affected actual treatment outcomes, not just process variables. Therefore, it appears that the perception of different types of match can indeed facilitate positive client outcomes.

Contrary to our hypothesis, ethnic identity did not moderate the effect of racial match on perceptions of similarity. This may be because race and ethnicity are two different constructs (Helms & Talleyrand, 1997). In response to an open-ended question on the ethnic identity measure, some participants identified themselves with their specific ethnic group (e.g., Chinese), whereas others identified themselves as “Asian American.” However, separate analyses by specific Asian ethnic identities could not be conducted because of the small sizes of the subsamples. It is unclear how one’s ethnic identity versus racial identity would function to moderate the effect of racial match on similarity. Future research should test the influence of ethnic identity and racial identity on

racial match, clearly examining how the nuances of each function to moderate the role of racial match. Moreover, it may be that other factors not assessed in this study—such as immigration history and recency, language, and perceived minority status—play a greater role than ethnic identity in the importance of racial match (Hall, 2001).

Racial match has been somewhat of a controversial issue for counselors and clinicians. Such configurations are immutable in that the counselor is incapable of producing a match or avoiding a mismatch beyond referring the client out. However, a major implication of the current study is that there may be several pathways to developing initial, positive results driven by the processes of perceived similarities. Racial match produced greater therapist credibility, and this effect was mediated by life experience similarity. This suggests that racially matched Asian American clients may perceive that their counselor has undergone similar life experiences and/or has come from a similar culture, and this leads them to evaluate the therapist to be more credible. Thus, racial match could be considered a viable therapeutic possibility when this option is possible at a counseling center. The effects found in this study may have actually been attenuated by the fact that participants were racially matched, not ethnically matched, to their counselor. Future studies can test whether ethnic match effects may be more robust, especially for Asian American clients, of whom 60%–70% identify with specific Asian ethnicities (e.g., Filipino, Korean, Japanese).

On the other hand, independent of racial match, attitudinal similarity was positively related to credibility and the working alliance, and this effect seemed to be mediated by perceived support. This result suggests that counselors may achieve credibility and a strong working alliance by making salient those attitudes and values that they share with the client. In fact, the respective effect sizes found in this study suggest that the perception of shared attitudes and values may have a stronger effect than racial match. It may be that the lack of shared attitudes or values (or perception thereof) explains why some Asian American clients prematurely terminate or have fewer counseling sessions. Additionally, attitudinal similarity may be a stronger determinant of outcomes because it was related to both the working alliance and therapist credibility. Having similarities in attitudes and values with a therapist may signify more personal or greater levels of empathy on the part of the therapist, which may explain the significant association with perceived support. On the other hand, sharing similar life experiences may give the client a sense that the therapist is more of an expert or trustworthy. A promising focus of future research involves determining which types of similarity activate differing levels of empathy perceptions or expectations within the counseling situation. Regardless, targeting attitudinal and value similarities between themselves and their clients is a practice that all therapists, regardless of race, can undertake to build rapport and to establish credibility with Asian American clients. A caveat is that because attitudinal similarity was not experimentally varied in this study, its relatively stronger effect may be due to shared variance between the self-report measures used to assess similarity and the process variables. Future research should experimentally manipulate attitudinal similarity to examine its effects on therapy processes.

Although attitudinal similarity may be more important than racial match in establishing credibility and rapport, this does not



mean that racial match is unimportant in therapy, especially when race is salient for many ethnic minorities (Ward, 2005; Wright & Littleford, 2002). Essentially, racial match affords the opportunity for clients to infer valued similarities (e.g., culture, life experiences, social class) that may affect the credibility of the therapist and the treatment and may potentially motivate clients to stay in treatment. However, after the first initial sessions, it may be more critical that clients believe that their therapist possesses similar attitudes and values. Future research can examine the importance of racial match using a longitudinal design to examine at what point match may be less significant than other features in counseling.

The findings should be considered within the limitations of the study, which included using a convenience sample and an analogue design. The analogue conditions constrained the dynamic interaction between clients and therapists in counseling. Being a third party observer of a counseling session may not have captured some of the same experiences that participants would otherwise have in a therapeutic encounter. However, these controlled conditions permitted for more precise examinations of the actual effects of client–therapist match on critical processes in counseling. Many previous field studies of racial match did not randomly assign individuals to match and nonmatch groups for obvious clinical reasons. Certainly, it is important to study racial match in a natural setting, but given the many variables that could be confounded with race, and the lack of randomization, it is questionable whether the results from previous match studies were solely due to match. Furthermore, the experimental design of this study allows us to conclude that racial match predicts therapist credibility, via the mechanism of experiential similarity. Few studies have been able to rigorously test whether racial match is a determinant of therapy process variables. Moreover, our design was similar in nature to several previous analogue studies (e.g., Akutsu et al., 1990; Lakey et al., 2008). Clearly, future clinical research is needed to determine whether the effects found in this study are externally valid.

S. Sue and Zane (1987) advocated for the study of more proximal variables of clinical processes and outcomes for ethnic minority clients, and it appears that perceptions of similarity and support may be important proximal variables in explaining the effects of racial match in therapy, at least for Asian American clients. Moreover, the examination of proximal variables allowed us to identify two important processes (i.e., experiential similarity and attitudinal similarity) that may facilitate more culturally informed treatments. Previous research has demonstrated the important influences of racial match and similarity perceptions separately, but to date, no known models have rigorously tested how these factors interact with one another to improve the therapy experience for Asian American clients. The model of similarity and support in this study represents an initial step in understanding the complex client–counselor interaction for Asian Americans and potentially other ethnic minority groups.

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