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The Effects of Client-Therapist Racial and Ethnic Matching:

A Meta-Analytic Review of Empirical Research

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Doctor of Philosophy

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ABSTRACT

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In a widely cited 2003 report, the U.S. Surgeon General criticized mental health and social services within the United States for failing to adequately serve the needs of clients of color. The report highlighted the fact that therapists often do not adequately account for cultural variables in their evaluations or interventions. Clients of color are rarely seen by therapists who adequately understand their cultural values and backgrounds. To address this discrepancy, researchers have explored a variety of therapy process and outcome variables across clients seen by therapists of their same race vs. another race (often called "ethnic matching"). Over 200 of these studies have appeared in the literature, but few conclusions have been drawn due to the large disparity across findings. To more accurately summarize these studies, three rigorous quantitative reviews using meta-analytical methods were conducted.

Forty-nine studies met inclusion criteria for the first meta-analysis (client preference studies), with the average effect size across studies being $d = .65$, indicating a strong preference for a therapist of the same ethnicity or race. Seventy-seven studies met inclusion criteria for the second meta-analysis (client perception studies), with the average effect size across studies being $d = .33$, indicating that ethnically matched clients tend to perceive their therapists moderately better than they perceived ethnically mismatched therapists. Fifty-two studies met inclusion criteria for the third meta-analysis (client outcome studies), with the average effect size across studies being $d = .09$, indicating that ethnic matching had minimal impact on client outcome. The effects of potential moderator variables, including age, gender, and ethnicity were also investigated. The results of this meta-analysis help inform current practice and future research efforts to promote multiculturally competent mental health interventions.

Keywords: mental health, ethnic matching, outcome.

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INTRODUCTION

Within the last several decades the population of the United States has become increasingly racially diverse (U.S. Bureau of the Census, 2000). In the U.S., the number of individuals of color now accounts for a significant proportion of the population (31%). Although there is evidence that mental illness is as prevalent among individuals of color as it is in the majority White population (Regier et al., 1993), these individuals are less likely than Whites to seek mental health services (Gallo, Marino, Ford, & Anthony, 1995; Sussman, Robins, & Earls, 1987). The 1999 U.S. Surgeon General's Report called for further research to investigate the reasons for the disparities in utilization of mental health services among European Americans and individuals of color. The 2001 U.S. Surgeon General's supplement report found that "racial and ethnic minorities bear a greater burden from unmet mental health needs and thus suffer a greater loss to their overall health and productivity" (p. 3). The concerns expressed by the Surgeon General in these reports have paralleled a dramatic increase in the number of studies investigating multicultural issues in mental health interventions and associated calls to increase multicultural competence among mental health professionals.

Several different aspects of psychotherapy have been found to be important when working with multicultural clients. Matching therapists and clients of the same ethnicity is one aspect of practice that has received increasing attention in recent decades (Sue, Fujino, Hu, & Takeuchi, 1991). Much of the research described as "ethnic matching" consists largely of studies in which client and therapist share the same racial, rather than ethnic, background. Even though the term *ethnic matching* may not be the most accurate representation for the type of research being conducted, I will refer to the matching of

client and therapist based on race or ethnicity as ethnic matching in order to maintain consistency with the prevalent term currently used in the field.

It is commonly presumed that ethnically matching clients and therapists will result in stronger therapeutic relationships and alliances. One possible reason for the stronger therapeutic alliances is that individuals of the same ethnicity are believed to hold generally similar values, norms, and worldviews regarding mental health. Value similarity may be a predictor of positive outcome for clients (Kelly & Strupp, 1992). Ethnic matching may also be beneficial because of mutual social networks and shared community structures (e.g., awareness of resources and sources of support). Furthermore, there may be benefits associated with improved understanding of linguistic concepts regarding mental health that do not translate well into English vernacular. Given these several possible influences, it is commonly expected that ethnically matched therapists and clients will be able to better relate to one another and thereby enhance the quality of mental health service provision.

Not only are there ample theoretical reasons to believe that ethnic matching can be beneficial to therapy outcomes but there is also a large body of research on the topic. Over the last few decades the number of empirical studies investigating mental health treatment of clients of color has increased dramatically, yielding hundreds of studies. Several of these studies have researched such aspects as the clients' preferences for matching, clients' perceptions of therapist based on matching, and clients' treatment outcome. The purpose of this study is to synthesize that research literature on ethnic matching via meta-analytic techniques. This study consists of three separate meta-analyses. The first meta-analysis investigates clients' preferences for ethnic matching.

The second investigates the effects of ethnic matching on clients' perceptions of the

therapist. The third investigates the effects of ethnic matching on the clients' outcomes

from mental health treatment.

REVIEW OF THE LITERATURE

Similarities between clients and therapists in psychotherapy have received attention in the research literature since the 1960s (Mendelsohn & Geller, 1963). Since that time, researchers have produced hundreds of studies on the topic. Early studies addressed the issue of ethnic matching and found mixed evidence regarding outcomes when clients and therapists were of the same ethnic background (Harrison, 1975). However, these early studies only investigated direct effects without attending to potentially moderating factors. Recent studies have increasingly focused on factors that potentially moderate the association between ethnic matching and client outcome. In recent years, studies on ethnic matching have consistently found that ethnic matching has a minimal to moderate impact on psychotherapy outcome (Coleman, Wampold, & Casali, 1995; Maramba & Nagayama Hall, 2002), which has resulted in a stronger focus on the impact of moderating variables rather than on the direct effects of ethnic matching. The following section will present an overview of the theoretical rationale underlying ethnic matching research, followed by an overview of the research findings with respect to ethnic matching.

Theoretical Foundations of Ethnic Matching

Understanding the theoretical foundations of a particular topic is essential in making informed decisions about data interpretation, relevance to existing findings, implications for clinical practice, etc. The rationale behind ethnic matching is grounded in a number of psychological theories that posit that similarities between client and therapist will enhance the quality of the therapeutic relationship and thereby indirectly influence client outcomes.

According to social psychology theories, human beings tend to seek out, respond to, and notice things that are familiar and similar to themselves and tend to be uncomfortable with things/people that are dissimilar (Baron & Bryne, 2000). Thus, when interacting with others we tend to focus on the similarities and tend to minimize the differences that make us uncomfortable. Clients in therapy with a therapist of a dissimilar ethnic background may expend psychological resources in attending to and working through those differences when such energy might be better spent in service of their own symptom reduction. Similarly, when therapists seek information and perceptions that are similar to their own and minimize differences between themselves and their clients, the therapist may gain limited understanding of the client's experience (Comas-Diaz & Jacobsen, 1991). Ethnic matching may help reduce the number of differences between client and therapist, and thus reduce the likelihood that the therapist will minimize some of the important aspects of the client's lived experience since these are no longer differences but rather similarities.

Another theory that sheds light on ways in which ethnic matching can potentially influence therapy is the theory of social influence. This theory proposes that there is a relationship between interpersonal similarity, credibility and attitude change (Simons, Berkowitz, and Moyer, 1970). According to Simons et al. (1970) "attitude change towards the position advocated by the source depends on the extent to which interpersonal similarities and dissimilarities are perceived as having instrumental value for the receiver" (p. 12). Therefore, it is possible that by ethnically matching client and therapist clients are more likely to benefit from the therapeutic relationship because the ethnically similar therapist may be seen as a more credible source.

Another potential benefit of ethnic matching concerns the multicultural sensitivity of the services provided. Traditionally, mental health services have been tailored to fit the needs of upper- and middle-class European Americans (Nagayama Hall, 2001). There is some evidence in the literature that the lack of focus on the mental health needs of people of color may have lead to perceptions of racism, general mistrust of psychotherapists, and general mistrust of institutions that are perceived to have been designed by Whites for Whites (e.g., Sue & Sue, 2008). Ethnic matching may be a way of reducing the salience of these negative perceptions for clients of color and thereby enhancing the use of mental health services by people of color. By ethnically matching client and therapist, the client may feel more inclined to see mental health services as appropriate for them. Similarly, therapists of color may be more attuned than European American therapists to cultural nuances and contexts that impact clients of color. That is, therapists of color may be more sensitive to providing interventions that are congruent with these client's values and beliefs. Thus, ethnically matching client and therapist may increase the likelihood that clients of color will seek out mental health services (Coleman et al., 1995).

Ethnic matching may also be beneficial to clients and therapists because of the language matching that co-occurs. The quality of the interaction between the client and therapist is likely to be influenced by the increased ability to freely communicate. Language matching allows for better communication of concepts that are difficult to translate as well as better expression of emotion since emotion is rooted in the native language of the speaker while other languages are cognitively rooted. Thus, by ethnically matching client and therapist it may be easier for clients to express themselves and for

therapists to understand important social and emotional concepts that might otherwise be misunderstood.

Meta-Analyses and Narrative Literature Reviews of Ethnic Matching

To date, three meta-analyses have reviewed studies on ethnic matching of client and therapists (Coleman et al., 1995; Maramba & Nagayama Hall, 2002; Shin et al., 2005). Coleman et al. performed a meta-analysis on 21 studies between 1971 and 1992 that assessed ethnic minorities' perceptions of and preference for ethnically similar therapists and European American therapists. Overall, the results of their meta-analysis supported the hypothesis that ethnic minorities tend to favor ethnic minority therapists to European American therapists. However, the authors pointed out that a number of factors seemed to influence these results. The research method utilized appeared to be related to the effect sizes obtained, and there was heterogeneity of effect sizes when all of the studies were considered as a group. For preference studies, when participants were not allowed to indicate "no preference" for ethnically similar or dissimilar therapist, there was an increased tendency to indicate a preference for an ethnically similar therapist. The authors also noted that for both the perception and preference studies participants were induced to make ratings on the basis of ethnicity alone, a factor that they may not necessarily have judged as the most important therapist characteristic (Coleman, 1992). The meta-analysis also found that cultural affiliation tended to moderate the perceptions of and preferences for ethnically similar therapists.

In a more limited examination, Maramba and Nagayama Hall (2002) performed a meta-analysis on 7 studies on ethnic match and psychotherapy conducted between 1977 and 1999 with independent samples. They conducted separate analyses for dropout,

utilization, and Global Assessment Score (Endicott, Spitzer, Fleiss, & Cohen, 1976) at termination. Clients who were matched with therapists of the same ethnicity were found to have lower dropout rates and were likely to attend more psychotherapy sessions than those who were not matched with therapists of the same ethnicity. These results were found to be small and statistically significant, but not particularly clinically significant (Jacobson & Truax, 1991). The combined effect size of Global Assessment Score of clients matched with therapists of the same ethnicity was not found to be statistically significant or clinically significant.

A third meta-analysis investigated outcome specific to African American clients (Shin et al., 2005) across 10 published and unpublished studies between 1991 and 2001. They compared retention in treatment, treatment tenure, and post treatment functioning status for clients who were matched with therapists of the same racial and ethnic minority and clients who were not matched with therapists of the same racial and ethnic minority using a random effects meta-analytic model. No overall effects were found for matching client and therapist based on race and ethnicity.

In addition to the meta-analyses on ethnic and racial matching of client and therapist, two researchers have conducted narrative literature reviews on the topic (Flaskerud, 1990; Karlsson, 2005). According to Flaskerud (1990) research on the effects of ethnicity, culture, or gender on the process of therapy has yielded inconsistent findings. One hypothesized reason for this inconsistency in findings is the lack of rigorous research on this topic; many of the studies were of anecdotal nature or involved uncontrolled observations. Another limitation is that most of the research on racial and

ethnic similarity between client and therapist focused on White therapists and Black clients, but few research studies included Asians, Latinos, and Native Americans.

In reviewing the literature, Flaskerud (1990) found that most studies can be divided into one of three categories: studies dealing with preference for therapist, therapy process, and therapy outcome. Studies investigating preference for therapists consistently found that Black clients preferred to be matched with Black therapists. The literature also indicated a possible relationship between preference for therapists and racial consciousness. Socioeconomic background also appeared to be significant in determining preference for therapist than racial similarity.

The results obtained in studies investigating the effect of racial and ethnic matching of client and therapist on therapy process were not as consistent as studies investigating preference for therapist. Sixty percent of studies with Black participants found no process effects when client and therapist were matched based on race and ethnicity. About half of the studies with Native American, Asian, and White participants found no process effect when client and therapists were matched based on race and ethnicity. There was also no evidence of process effect for Latino participants. Flaskerud (1990) concluded that, "taken together, the research on the process of therapy offers little support for the assumption that ethnically similar therapist-client pairings are more effective than dissimilar ones" (p. 324).

 Flaskerud (1990) also found that studies investigating the effect of client and therapist matching on therapy outcome had mixed results. The review offered little support to the assumption that matching client and therapist based on race and ethnicity leads to better therapy outcome.

Karlsson (2005) reviewed the empirical support for racial and ethnic matching of client and therapist by reviewing analog studies, archival studies of number of attended session and dropout rates, and process-outcome studies of psychotherapy. This review indicated that support for racial and ethnic matching is inconclusive and suffers from low validity. In reviewing analog studies, two subgroups were found: simple choice (participants state their preference for an ethnically similar or dissimilar therapist after being exposed to a psychotherapy session) and paired comparisons (participants were asked to rate several characteristics of therapist-client interaction after being exposed to a psychotherapy session). The review of simple choice studies with African American, Native American, Asian, and Hispanic participants yielded inconclusive results. Some studies indicated a preference for racial and ethnically similar therapists, whereas other studies indicated no preference for racially and ethnically similar therapists for all racially and ethnic groups. The review of paired comparison studies indicated that when given choices, participants ranked other therapist characteristics as more significant than therapist race and ethnicity.

In reviewing archival studies, Karlsson (2005) also found the data to be inconclusive as to whether or not matching client and therapist on the basis of race and ethnicity increases the number of sessions attended and decreases dropout rate. Studies investigating the effect of client and therapist matching on the process and outcome of psychotherapy are rare and offer little support for the assumption that ethnic matching leads to better outcome and more satisfaction in psychotherapy.

By way of summary, previous meta-analyses and literature reviews have generally found that ethnic matching is moderately to strongly related to client

preferences but minimally related to client outcomes. Furthermore, there is great variability across studies, with some studies finding statistically significant effects and others finding no effect at all. A number of questions remain unanswered concerning the factors that significantly influence therapy outcome with ethnic minority clients. Since the time that these previous meta-analyses and literature reviews were conducted, dozens of additional studies have appeared in the literature, necessitating an updated synthesis of contemporary research with specific attention to variables that might moderate the impact of ethnic matching.

Moderating Client Variables

Several researches have investigated variables pertaining to clients that may moderate the effects of ethnic matching. The following section is a review of this research and includes a discussion on variables such as level of acculturation, ethnicity, native language, and demographic variables.

Client level of acculturation. The client's level of acculturation is perhaps the most important factor in determining the influence of ethnic matching between client and therapist. Acculturation is defined as the process of adaptation resulting from contact with a dominant culture (Gamst et al., 2002; Karlsson, 2005). Individual members and subgroups of an ethnic group may vary widely in the extent to which they have assimilated the majority culture (European American in North America). Therefore identifying an individual simply as a member of an ethnic group may not be an accurate portrayal of the individual's perceptions of his/her ethnic identity (Karlsson, 2005). Moreover, because most people living in the United States are heavily influenced by European American values, many members of ethnic minority groups experience a

bicultural identity wherein aspects of both their ancestral ethnicity and European American culture are evident (Nagayama Hall, 2001).

Individuals' level of acculturation is associated with their level of confidence and level of fluidity in interacting with people of a given culture, such that factors related to acculturation could impact clients' interactions with therapists. An individual's level of acculturation also influences his or her worldviews, expectations, and mental health values, which would each influence his or her experience in therapy. As an example, Gamst et al. (2002) investigated client preference for ethnically similar therapist for Latino clients with varying degrees of acculturation. They found that Mexican-oriented adults had a higher preference for culturally similar therapists than did Anglo-oriented adults suggesting that level of acculturation could be a significant factor influencing the effect of ethnic matching. In order to fully understand the effect of ethnic matching on psychotherapy, researchers need to be aware of clients' levels of acculturation.

Client ethnicity. Given differences in cultural values and mores, it should not be surprising that ethnic matching may not impact all ethnic groups in the same manner. For example, there is some evidence that African Americans generally mistrust and underutilize mental health services provided by European American therapists (O'Sullivan, Peterson, Cox, & Kirkeby, 1989; Snowden, 1999; Sue, 1977; Sussman et al., 1987). Explanations for this finding include the possibility of a perceived racial bias in the provision of mental health services and the implicit association of mental health services with the values of European American culture (Maultsby, 1982; Ridley, 1984). A meta-analysis conducted by Whaley (2001) found that cultural mistrust among African Americans was moderately associated with their psychosocial functioning. These

findings would appear to indicate that African American clients may particularly benefit from ethnic matching in psychotherapy. Early studies on ethnic matching with African American clients support this conclusion (Atkinson, 1983, 1985; Griffith & Jones, 1979, Proctor & Rosen, 1981; Sattler, 1977; Wolkon, Moriwaki, & Williams, 1973). However, at least one subsequent study has found that ethnic matching was not as crucial for African American clients as previously believed (Atkinson & Lowe, 1995). Although the results are somewhat mixed, it appears that ethnic matching may be particularly useful for African American clients.

However, the same dynamics may not characterize the perceptions of other ethnic groups. The limited literature investigating the effects of ethnic matching on clients belonging to other ethnic minority groups has yielded mixed results (Karlsson, 2005). For example, there is some evidence that Asian American clients may actually have a preference for European American therapists due to internalized racism by Asian Americans (Alvarez & Helms, 2001), but even when seen by European American therapists, Asian American clients still tend to have high dropout rates and underutilize traditional mental health services (Leong, 1986). Studies concerning the preference for ethnic matching with Asian American clients have yielded mixed results (Atkinson, Maruyama, & Matsui, 1978). Similarly, across studies with exclusively Latino/a clients, some results indicate a preference for ethnic matching (Lopez et al., 1991; Sanchez & King, 1986) while others document no preference for ethnic matching (Acosta, 1979; Acosta & Sheehan, 1976; Atkinson, 1983; Sue, Zane, & Young, 1994). Studies with Native American clients have also yielded mixed results (Atkinson, 1983; Dauphinais, Dauphinais, & Rowe, 1981; Haviland, Horswill, O'Connell, & Dynneson, 1983;

LaFramboise & Dixon, 1981). There is also evidence suggesting that client outcome is similar across ethnic groups regardless of whether or not they are ethnically matched with their therapist (Lambert et al., 2006). Given these findings, it is unclear whether ethnic matching will be equally beneficial for all ethnic groups.

Client native language. Ethnic matching appears to be most influential when therapy is conducted in the clients' native language (Griner & Smith, 2006; Shin et al., 2005). Specifically, clients who speak English as a second language are likely to benefit from ethnic matching because of the accompanying "language matching." Matching by clients' native language potentially enables better communication between client and therapist.

Research consistently supports the benefits of language matching (Belton, 1984; Dolgin, Salazar, & Cruz, 1987; Leong, 1986; McKinley, 1987). The "lack of common language is thought to result in a diagnosis of more severe psychopathology, decreased client self-disclosure, lower ratings of client-therapist rapport, and lower ratings of therapists' empathy and effectiveness" (Flaskerud, 1990, p. 325). In addition, most studies investigating client and therapist language match have found negative effects when client and therapist did not share the same native language. In a study investigating the effects of language matching, Sue et al. (1991) found that for Asian Americans and Mexican Americans who did not speak English as their primary language, ethnic matching between client and therapist was important in terms of dropout, length of treatment, and outcome. They also found that for English speakers, ethnic matching was only significantly related to the length of treatment for Asian Americans, but not for any other variable (dropout, length of treatment, or outcome) for other ethnic groups. Overall,

it appears that language matching is an important component of ethnic matching and influences several aspects of psychotherapy processes and outcomes.

Client demographic variables. Demographic variables such as age, gender, and socioeconomic status may also influence the effects of ethnic matching because these variables are typically associated with clients' worldviews, attitudes, and values. For example, clients with higher chronological age benefit more than younger clients when cultural adaptations are made to traditional mental health interventions, presumably because of the association between age and level of acculturation (Griner & Smith, 2006). It may be that older populations might feel more comfortable working with members of their own ethnic group. Nevertheless, several studies have demonstrated that even young adult college students prefer ethnically similar therapists (Tharp, 1991; Atkinson, Furlong, & Poston, 1986; Atkinson, Poston, Furlong, & Mercado, 1989; Haviland et al., 1983; Ponterotto, Alexander, & Hinkston, 1988). However, this preference may not be prevalent among children and adolescents. Treatment outcome for children and adolescents does not appear to benefit significantly from ethnic matching (Gamst, Dana, Der-Karabetian, & Kramer, 2004). Nevertheless, there is some evidence that ethnic matching may have a positive effect on treatment retention among adolescents (Wintersteen, Mensinger, & Diamond, 2005).

No studies were located in the literature that explicitly investigated the effects of gender on ethnic matching. However, studies on gender matching (e.g., male clients with male therapists) appear to indicate that client ethnicity moderates the effect of gender matching (Flaskerud, 1990). One study with a sample of African American clients actually found higher dropout rates when clients were matched by gender (Vail, 1976).

Another study found greater utilization rates for Asian American male clients matched with male therapists, although this relationship was not significant for Black, Latino, or Native American clients (Wu & Windle, 1980). In yet another study gender matching decreased dropout rates for Asian male clients, however, the same was not true for Asian female clients (Flaskerud & Liu, 1991). Although there is evidence that gender matching is beneficial for some ethnic groups, we do not yet know whether males or females differentially benefit from ethnic matching.

No studies were found that directly investigated the impact of socioeconomic status on ethnic matching. However, previous research has demonstrated that socioeconomic status is highly associated with client ethnic identity, which in turn may influence the effects of ethnic matching. In a review of literature Karlsson (2005) found that several researchers have indicated the importance of socioeconomic status in understanding differences in attitudes and treatment results between ethnic groups (Alvidrez, Azocar, & Miranda, 1996; Atkinson, 1987; Betancourt & Lopez, 1995; Lorion & Parron, 1985; Wolkon et al., 1973). Some authors have indicated that perceived differences in studies regarding ethnicity may actually be the result of differences in socioeconomic status (Alvidrez et al., 1996). It is still unclear exactly how socioeconomic status impacts ethnic matching, although extensive literature has documented that socioeconomic status impacts clients' worldview, which is an important component of ethnicity and ethnic matching.

Moderating Therapist Variables

In a review of research on psychotherapy with ethnic minority clients, Sue (1988) discussed the fact that "among the most frequent criticism of psychotherapy with ethnic

minority clients is the lack of bilingual and bicultural therapist who can communicate and can understand the values, lifestyles, and backgrounds of these clients" (p. 302). Unfortunately, this issue has not received sustained research focus. There are significantly fewer studies investigating the characteristics of therapists involved in the treatment of ethnic minority clients than there are studies investigating the characteristics of clients. However, the few studies that have investigated characteristics of therapists have acknowledged the need for and the value of therapist multicultural competence. The following section reviews some of the therapist characteristics that influence the effects of ethnic and racial matching.

Therapist multicultural training. In the last few decades, psychology as a field has advocated for better training and awareness of multicultural issues in psychotherapy (D.W. Sue, Arredondo, & McDavis, 1992). With the increase of cultural diversity in North America, many have realized that therapists have a responsibility to make mental health services more accessible to clients of color and adapt mental health services to better serve them (Griner & Smith, 2006; Sue & Sue, 2008).

Despite the call for multicultural competence among therapists, there are still those who report having little multicultural training. In a qualitative study by Knox, Burkard, Johnson, Suzuki, and Ponterotto (2003), European American and African American therapists shared their experiences regarding racially different individuals during graduate school. They found that both African American therapists and European American therapists typically reported taking classes in graduate school where at least some of the focus was directed toward multicultural issues. Therapists also reported having attended additional multicultural workshops and interest groups. Both groups of

therapists also reported having experiences with multiculturalism during their practicum or internship. A few African American therapists reported having minimal or no practicum-related experiences addressing race and ethnicity; whereas most European American therapists reported having minimal or no practicum-related experiences addressing race and ethnicity. Although it is evident that improvements can be made in multicultural training, there is strong evidence suggesting that training of therapists is effective and does result in gains in multicultural competence (Smith, Constantine, Dunn, Dinehart, & Montoya, 2006).

Therapist ethnicity. Theoretically, it is not only the ethnicity of the client that could affect the therapeutic interaction but also the ethnicity of the therapist. However, no research evidence has been located that suggests that a therapist's ethnicity has any impact on how the therapist conducts therapy. Although therapists' ethnicity does not seem to have any direct effect on the way therapy is conducted, therapists' ethnicity may have some implications for psychotherapy. At least one study has found evidence suggesting that the ethnicity of the provider is significantly related to the number of clients of color served, with mental health providers of color being more likely than White providers to treat ethnic minority clients (Turner & Turner, 1996). Although there are no certain reasons behind this finding, some possible explanations have been identified: client's preferences for ethnically similar therapists, therapist's preference for ethnically similar clients, referral sources assumptions regarding the benefits of ethnic matching, and the representation of providers of color in specific treatment settings where clients of color predominate. Additional research is necessary in order to further

understand the impact of therapist's ethnicity on the therapeutic interaction and therapy outcome.

Variables Beyond Ethnic Matching

In a review of the research concerning psychotherapy service of ethnic minorities, Sue (1988) addressed the dilemma inherit in the concept of ethnic matching.

> Ethnicity of therapist or client and ethnic match are distal variables; consequently, weak or conflicting results are likely to be found between ethnic match and outcome. Ethnicity per se tells us very little about the attitudes, values, experiences, and behaviors of *individuals*, therapists or clients, who interact in therapy session. What is known is that although *groups* exhibit cultural differences, considerable individual differences may exist within groups. Ethnic matches can result in cultural mismatches if therapists and clients from the same ethnic group show markedly different values. (p. 306)

Simply matching a client and therapist by ethnicity may not be an accurate match of values, attitudes, and life experiences. Without matching these factors there appears to be little benefit to ethnic matching. Therefore, more so than ethnic matching, it appears that matching by attitudes, values, and experiences would be more beneficial therapeutically. Recent research by Zane and colleagues (2005) indicates that factors such as cognitive match are more important to treatment outcome than racial or ethnic match. Specifically, matching problem perception, coping orientation, and treatment goal appear to be important aspects relevant to psychotherapy processes and outcomes. These findings imply that the ability to effectively work with clients of color is not limited to therapists

of color but also includes White therapists who are similar to their clients in ways other than ethnicity.

Overall, all interactions in mental health settings involve differences between clients and therapists. Speight, Myers, Cox, and Highlen (1991) point out that "the ability to work with another individual who by definition is a separate and distinct entity is a basic counseling skill, not reserved only for those who choose to specialize in multicultural counseling" (p. 30). Sensitivity towards a client is a quality and skill required of therapists regardless of racial and ethnic background. Therefore, general psychotherapy competence, along with multicultural competence, would be more beneficial in therapeutic interactions than whether or not the client and therapist share the same ethnicity.

In order to address these complex issues, this study will synthesize dozens of research articles on ethnic matching that have appeared in the literature since Coleman et al.'s 1995 meta-analysis on ethnic matching. Specifically, three separate meta-analyses will consider client preferences for therapists of similar ethnicity, client perceptions of therapists across ethnicity, and client outcomes across differences in therapist ethnicity. The results should shed important light on the factors that influence the mental health treatment of ethnic minority clients. This study will also evaluate possible moderator variables that may influence the therapeutic interaction and clients' outcomes in treatment in order to better understand the role of ethnic matching. This increased understanding is intended to respond to the call for enhanced multicultural competence in mental health treatment and further enhance the quality of services for individuals of color.

METHOD

Literature Search

In order to obtain published and unpublished studies that examine the effectiveness of ethnic matching, several techniques were used. First, searches were conducted using electronic databases: PsychINFO, Family and Society Studies Worldwide, PsycArticles, Social Work Abstracts, Sociological Abstracts, Academic Search Elite, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Criminal Justice Abstracts, Education Resources Information Center (ERIC) databases, Medline, Science Citation Index (SCI), Social Sciences Abstracts, Social Sciences Citation Index (SSCI), CQ Researcher, and Digital Dissertations. In order to diminish the number of inadvertent omissions, databases yielding the most citations were searched one to three additional times through May, 2007. Next, reference sections of located articles were physically examined to identify additional studies that met inclusion criteria but were not identified in the database searches. Finally, through email, letters, and phone calls authors who published two or more articles on the topic were solicited to provide information regarding other (unpublished) studies that could possibly be included in the meta-analysis.

Studies written in English and Spanish that provided quantitative data evaluating the effects of ethnic matching between mental health client and therapist on therapy were included in the meta-analysis. Case studies, single-subject designs, qualitative research articles, and conceptual/theoretical papers were excluded.

Data Coding

Each article was coded by a dyad of coders and subsequently recoded by a separate dyad. The coding team consisted of 10 individuals, seven undergraduate and three graduate students. All had previously completed coursework in statistics and research methods. All received training in meta-analytic methods and in coding procedures specific to this study. Two separate coding dyads were used to help obtain results that were as accurate as possible. Coders extracted independent and identifiable characteristics from each study. These characteristics included (a) the source of the study (journal article, dissertation, etc.); (b) the number of participants and their age, gender, and ethnicity if reported; (c) the type of population receiving the mental health intervention (normal community members, at-risk groups and clinical populations); (d) the treatment type and duration; and (e) the racial/ethnic composition of the comparison groups (groups of mixed-race vs. same-race participants).

The majority of information obtained from the studies was extracted verbatim from the reports. As a result, inter-rater agreement was quite high for categorical variables (calculated using Cohen's Kappa) and for continuous variables (calculated using intraclass correlations using one-way random effects models for single measures). Discrepancies across coding teams were resolved through further scrutiny of the manuscript to the point of consensus among coders. In case additional arbitration among coders was required, the dissertation chair provided information on coding as needed.

Computation of Effect Size Estimates

Among the studies included in this meta-analysis, several different statistics were reported: correlations, analyses of variance, *t*-tests, odds ratios, chi squares, means and

standard deviations, and p-values. In order to compare these data across studies, the statistics reported were transformed to standardized mean differences (Cohen's *d*) using the Meta-analysis Calculator software (Lyons, 1996). If an analysis was reported to be "statistically significant" but no statistic was provided, the *d* value was determined by the corresponding *alpha* level (assuming two-tailed *alpha* = .05 unless reported otherwise). Analyses that reported results as "non-significant" but gave no additional information were set to effect size *d* = .00. These procedures helped yield conservative effect size estimates. The direction of all effect sizes was coded uniformly, such that positive values indicated a comparatively greater benefit from the ethnic matching and negative values indicated that the control or comparison group had a more beneficial effect than the ethnically matched group.

Several studies reported data on multiple outcome measures. For example, some studies assessed several aspects of symptom reduction (i.e. anxiety and depression). According to the assumption of statistically independent samples, there would be a greater likelihood of non-independence in the data should each effect size be used in the omnibus analysis (Cooper, 1998; Cooper & Hedges, 1994; Hedges & Olkin, 1985). Therefore, the effect sizes within each study were averaged (weighted by the number of participants included in the analysis) to compute an aggregate effect size (Mullen, 1989), such that each study contributed only one data point in the omnibus analysis of each meta-analysis. When more detailed information was required, the specific effect size representing the information needed was used rather than the aggregate (Cooper, 1998; Cooper & Hedges, 1994).

Data Analyses

Data were analyzed in order to obtain an omnibus random effects weighted average effect size. The omnibus effect size was obtained by taking the statistical aggregate of all independent observations obtained across studies; in simpler terms, the statistical average of all effect sizes located in the literature search. When a single study to contained multiple effect sizes (e.g. when several different outcome measures were used to measure improvement in the same sample of clients) the multiple effect sizes were averaged (weighted by N) so that each study only contributed a single observation in the omnibus analysis. This was done in order to avoid biasing the results in favor of studies where multiple effect sizes had been obtained. Similarly, studies using different populations (e.g., separate groups of men and women) but identical measures and procedures were also statistically aggregated so that they contributed a single effect size to the meta-analysis. In rare cases, when identical data was published in multiple sources (e.g., the same author published the results of a study in two separate journals) only one of these identical observations was utilized in the calculation of the omnibus effect size. These procedures helped ensure that the assumption of statistically independent effect sizes was maintained when calculating the omnibus effect size.

As highlighted earlier, previous studies on ethnic matching have looked at dependent variables: client's preference for therapist; client's perceptions/evaluations of therapist's credibility, skills, relationships, or alliance; and client outcome. These constructs represent conceptually distinct concepts, but each one may be influenced by ethnic matching. This research project analyzed data collected on all of these dependent variables and considered them separately in three distinct analyses. By conducting three

separate meta-analyses, this project was able to ascertain the effects of ethnic matching with greater specificity than was possible in previous attempts to synthesize the research literature.

Because results within studies were based on different procedures, methods, measures, number of participants (such that sampling error would be of concerns when comparing studies equivalently), etc., results were weighted using random effects models. Random effects models are statistical procedures for accounting for variability in the effect sizes obtained as a function of the number of participants involved in each study. By way of contrast, fixed effects models assume that the studies obtained are the population to which one wishes to generalize. However, random effects models assume that there is a larger universe of studies that have remained unaccounted for which also much be considered when generalizing the effects. In short, fixed effects models assumes that the studies obtained are the effects observed, whereas random effects models assume that additional factors beyond those characterized by the studies obtained must be considered. Based on recommendations in the literature over the past several years, virtually all large meta-analyses now employ random effects models in aggregating and analyzing data (Field, 2005). Thus, the results of this analysis provided estimates of the magnitude of the effects of ethnic matching that are intended to generalize to the entire body of research.

Publication Bias

The possibility that the results were moderated by publication status of the research manuscript was assessed. This analysis was essential because of possible *publication bias*, which is related to (1) the likelihood for meta-analyses to include larger

numbers of published than unpublished studies and (2) the likelihood for published

studies to have larger effect sizes than unpublished studies. The combination of these two

trends may result in a meta-analysis reporting inflated effect size values unless

publication bias is explicitly evaluated. To rule out the possibility of publication bias,

fail-safe N was calculated (Begg, 1994). The fail-safe N is the theoretical number of

unpublished/missing studies with effect sizes averaging zero (no effect) that would

reduce the overall magnitude of the results obtained to a trivial number using Cohen's

(1988) guidelines for interpreting effect sizes.

In addition to the calculation of a fail-safe N, a scatter-plot was used to assess the

possibility of publication bias. First, a visual display of the effect sizes (x-axis) by the

number of participants per study (logarithmic y-axis) was created. The resulting pattern

of data in the scatter-plot was expected to resemble an inverse funnel or elongated

pyramid indicating that studies with the largest number of research participants had

decreased variability in the magnitude of effect sizes whereas, studies with fewer

research participants (located at the bottom of the plot) were widely dispersed due to

sampling error. Evidence against publication bias was found when studies appeared

across the full range of the bottom of the plot, without "missing" corners of the pyramid.

The *trim and fill* method of Duval and Tweedie (2000a, 2000b) was then used to

estimate the number of missing studies due to publication bias. This method involved

removing (*trimming*) outlying studies that had no corresponding values on the opposite

side of the distribution and then re-calculating the mean effect size. This process was

repeated until the distribution was symmetrical with respect to the mean. As

recommended by Duval and Tweedie (2000b), L_0+ was used to estimate the number of

missing studies, using formulae provided by Jennions and Moller (2002). The final step

in the procedure was to replace the *trimmed* studies along with *filled* estimated values of

the *missing* studies on the other side of the distribution. The *filled* studies corresponded

with the opposite values of those *trimmed*. The resulting data set inclusive of *filled*

missing studies was then used to calculate a new omnibus effect size, with statistically

non-significant values indicating potential publication bias.

Moderation by Client and Therapist Variables

As described previously, several client and therapist variables were coded with

the assumption that they may have moderated the overall results. To determine the degree

of association of these variables with the effect sizes in the studies, two different types of

analyses were conducted. For continuous level data (e.g., percent female, average age of

participants) random effects weighted simple regression models (the equivalent of a

bivariate correlation) was performed between the variable of interest and the effect size

obtained within each study. For example, the percentage of female participants within a

given study was correlated with the effect size obtained for that study. Categorical level

variables (e.g., research design, treatment type, type of dependent variable, etc.) were

analyzed using random effects weight analyses of variance (ANOVAs).

RESULTS

Results of Meta-Analysis 1: Studies of Client Preferences

The first meta-analysis was conducted to determine the effects of the independent variables on client preferences. The following section presents results regarding descriptive information, omnibus analysis, publication bias, and moderation by both continuous and categorical level variables of the study and client characteristics.

Descriptive information. Statistically non-redundant effect sizes were extracted from 49 studies of client preferences for therapist race or ethnicity. Across these studies, data were reported from a total of 7,690 participants, with an average of 157 participants per study (range = 8 to 467). Participants were on average 23 years old (range = 9 to 47); 62% of participants were female; 45% were Black, 26% were White, 14% were Latino/a, 10% were Native American, and 5% were Asian American.

Omnibus analysis. Across the 49 studies investigating client preference for therapist race or ethnicity, the random effects weighted average effect size was $d = .65$ (SE = .08, $p < .00001$, 95% Confidence interval = .49 to .80), which is indicative of a strong client preference for a therapist of the same race or ethnicity. Effect sizes ranged from -.24 to 3.35, with the index of heterogeneity across studies being statistically significant, $Q_{(48)} = 474.0$, $p < .001$, suggesting that systematic effect size variability was unaccounted for. Subsequent analyses were conducted to determine the extent to which the variability of the effect sizes was moderated by other variables.

Publication bias. The possibility that the results presented above were moderated by the publication status of the research manuscript was evaluated. In the present study, the average random effects weighted effect size across 34 published manuscripts was $d =$

.61, whereas the average effect size for 15 unpublished manuscripts was $d = .73$, which

difference did not reach statistical significance ($Q = .05, p = .47$). This finding was

actually opposite the direction from the typical pattern expected.

As an additional step to rule out the possibility of publication bias, a fail-safe N

(Begg, 1994) was calculated. Based on this calculation, at least 5889 additional studies

averaging $d = 0$ would need to be found to render negligible the results of the 49 studies

that were obtained. It seemed improbable that at least 5,889 studies with null findings

were unaccounted for in the literature; thus it was reasoned that publication bias did not

adversely impact the results reported above.

The next step involved plotting the effect sizes against the sample size of the

study, sometimes referred to as a "funnel graph" (Begg, 1994). When the data were

plotted for the 49 studies investigating client preference for therapist race or ethnicity, the

results did demonstrate the typical "peak" representing the top half of the expected funnel

shape, but the data were negatively skewed, with very few low-N studies of low (or

negative) magnitude effect sizes. That is, the results were evenly distributed at the upper

end of the distribution but they were not evenly distributed at the "base" of the inverted

funnel –possibly indicative of "missing" studies. Therefore, an additional funnel graph

plotting the effect sizes by the standard error observed within each study was conducted.

This plot was decidedly less skewed, with only five of 49 studies failing to conform to

the expected distribution.

As a final step, a *trim and fill* analysis (Duval & Tweedie, 2000a, 2000b) was

conducted to estimate the number of missing studies due to publication bias. In the

current study, the recalculated random effects weighted mean effect size remained $d = .65$

($p < .00001$) because no studies were *trimmed* from the analyses. Thus publication bias did not appear likely to be a threat to the results obtained in this meta-analysis.

Moderation by continuous level variables of study and client characteristics. Data were extracted on continuous variables: year of study publication, therapist and client gender (percentage of female therapists and clients in study), education level of therapist, age of client, standardized age (age of client plus year of study to control for possible cohort effect), socioeconomic status of client, and race or ethnicity of client and therapist (percentage of clients and therapists representing different ethnic groups). Random effects weighted correlations were conducted between the values obtained on those variables and the effect sizes obtained within each study. As can be seen in Table 1, most correlations were of small magnitude, with only a few correlations reaching a moderate level of magnitude.

The correlation between year of study and effect size reached a moderate level of magnitude ($r = -.25$) and was statistically significant ($p = .04$). This correlation suggests that the earlier the year of the study, the stronger the preference observed for racial/ethnic matching. Hence, it appears that there has been a trend for preference for racially similar therapists to be decreasing in magnitude over time. The correlation between gender of client (operationalized as percentage of female participants) and the effect size within each study also reached moderate magnitude ($r = -.23$) with a level of significance of $p = .07$. This trend may suggest that men appear to express a greater preference for racial/ethnic matching than women. The correlation between percentage of Black clients within each study and the corresponding effect size also reached moderate magnitude ($r = .26$; $p = .09$), which suggests that Black clients may have stronger preferences for same-

Table 1

Random Effects Weighted Correlations Values with Study and Client Characteristic Variables across Preference Studies (Meta-Analysis 1), Perception Studies (Meta-Analysis 2) and Outcome Studies (Meta-Analysis 3)

Variable	Meta-Analysis 1		Meta-Analysis 2		Meta-Analysis 3	
	r	k	r	k	r	k
Year of Publication	-.25[**]	49	-.05	77	-.20[*]	52
Gender of Therapist [a]	.08	13	-.03	33	-.26	21
Education of Therapist	-.09	15	-.05	45	.20	37
Age of Client	-.03	34	-.11	75	.24[**]	50
Standardized Age [b]	-.22	34	-.09	75	.12	50
Gender of Client [a]	-.23[*]	43	-.13	71	.07	45
Education of Client	.03	48	-.03	75	.06	49
SES of Client	.09	47	.01	77	.04	52
% White Clients	.02	24	-.29[*]	32	-.15	35
% Black Clients	.26[*]	31	.21	44	.10	37
% Latino/a Clients	.46[*]	16	.12	17	.15	27
% Asian American Clients	.81[***]	6	.58[**]	15	-.16	25
% Native American Clients	.46[*]	7			.85	3
% Other Race Clients					.87[**]	7
% White Therapists	-.41	15	.02	41	-.06	29
% Black Therapists	.30	15	-.17	41	.08	23
% Latino/a Therapists	-.27	15	-.08	41	.02	31
% Asian American Therapists	-.11	15	.12	41	.21	14
% Native American Therapists	.46	15				
Total Number of Participants	-.38[***]	49	-.21[**]	77	.01	53

*p < .10   ** p < .05   ***p < .01

[a] Percent female
[b] Year of study minus age to control for cohort effect

race therapists compared to other groups of clients. Similarly, the correlation between percentage of Latino clients and effect size also reached moderate significance ($r = .46$; $p = .06$) suggesting that the higher the percentage of Latino clients the higher the preference observed in the study for same-race therapists. The same trend was found with percentage of Asian American clients ($r = .81$, $p = .004$) and percentage of Native American clients ($r = .46$, $p = .11$). However, these last two results are likely unreliable estimates of the observed relationship due to the small number of studies included in these two analyses ($k = 6$, $k = 7$).

Moderation by categorical level variables of study and client characteristics. Data were extracted for categorical variables: type of match observed (racial or ethnic), client language use, client/therapist language match, client race or ethnicity (when samples were homogeneous with respect to race or ethnicity), client gender (when samples were exclusively male or female), client socioeconomic status, schema for operationalization of racial/ethnic match, type of racial comparisons, and research design type. Differences across these variables using random effects weighted ANOVAs were analyzed as shown in Table 2.

No differences were observed across most of the categorical variables including type of match (racial vs. ethnic), language match, research design type, participant SES, or participant gender. However, four results were found that were statistically significant at the $p < .10$ value. The first, participant language use, was deemed to be unstable due to the few number of studies ($k = 3$) with participants of uncertain English proficiency. Yet, the results did differ notably across studies with participants of different racial groups. Effect sizes among studies with White clients were notably lower than studies conducted

Table 2

Weighted Average Effect Sizes across Categorical Variables for Meta-Analysis 1 (Preference Studies)

Variable	Q	*p*	*d*	95% CI	*k*
Type of Match	.7	.41			
Racial			.64	[.46, .81]	40
Ethnic			.83	[.41, 1.2]	7
Client Language Use	2.9	.09			
English Proficient			.68	[.52, .84]	46
Uncertain Proficiency			.13	[-.47, .74]	3
Language Match	.1	.95			
English Only			.65	[.49, .81]	44
Possible Match			.64	[.13, 1.1]	5
Operalization of Match	2.8	.09			
Race of Therapist Varies			.83	[.61, 1.1]	26
Therapist X Client Matrix			.54	[.28, .80]	18
Type of Racial Comparisons	5.6	.06			
Multiple Comparisons			.50	[.30, .70]	29
Black Clients vs. non-Black Therapists			.90	[.57, 1.2]	13
Latino Clients vs. non-Latino Therapists			.89	[.43, 1.3]	6
Research Design Type	.3	.57			
Actual Treatment			.81	[.22, 1.4]	5
Analogue			.64	[.48, .80]	44
Client Socioeconomic Status	2.5	.29			
Lower			.45	[.11, .80]	11
Lower-Middle			.78	[.57, 1.0]	25
Middle			.64	[.31, .97]	11
Race Specific Results	8.0	.09			
White			.27	[-1.0, .61]	13
Black			.87	[.59, 1.1]	23
Latino/a			.62	[.21, 1.0]	10
Asian American			.33	[-.33, .99]	4
Native American			.53	[-.04, 1.1]	5
Gender Specific Results	.2	.69			
Male			.75	[.49, 1.0]	10
Female			.68	[.46, 9.0]	11

with all other racial groups, except Asian Americans, with the effect sizes for Blacks, Latino/as, and Native Americans being substantially higher (indicating stronger preference for a therapist of their same-race group) than studies with White or Asian American clients.

The results specific to the operationalization of the match seemed to reveal that when the race or ethnicity of the therapist varied (i.e., giving a single group of clients an alternative between a therapist of their own race vs. another race) the magnitude of the effect was notably higher than when the data were generated from a matrix of two racial groups, matched and unmatched ($p = .09$). The likely explanation for this difference may be that with a matrix approach White clients and White therapists were typically included; because White clients typically demonstrated lower levels of preference for racially similar therapists, the inclusion of White clients in the research design therefore reduced the overall magnitude of the effect size obtained when a matrix comparison was utilized. In contrast, when the race of the therapist alone varied, the clients were exclusively clients of color; the stronger preference for therapists of the same race observed in studies with this type of design was likely due to sample composition.

As above, the results were also found to differ ($p = .06$) across the type of racial comparison conducted. The effect was strongest when the clients were either Black or Latino/a. When multiple comparisons were made (which comparisons most often included White clients) the effect sizes were of much lower magnitude than when the comparison involved solely Black or Latino/a clients. Hence, the results of these three analyses all pointed to the same trend: preference for same race therapists is strongest among Black and Latino/a clients; studies involving White clients demonstrated

preferences of much lower magnitude with respect to preference for therapists of the same race.

Results of Meta-Analysis 2: Studies of Client Perceptions of Therapists

A second meta-analysis was also performed to determine the effects of the independent variables on client's perceptions of therapists. The results for the analysis regarding descriptive information, omnibus analysis, publication bias, and moderation by both continuous and categorical level variables of the study and client characteristics are discussed below.

Descriptive information. Statistically non-redundant effect sizes were extracted from 77 studies of client perception or evaluation of therapists as a function of ethnic matching. Across these studies, data were reported from a total of 9,137 participants, with an average of 119 participants per study (range = 16 to 941). Participants were on average 25 years old (range = 9 to 44); 57% of participants were female; 43% were Black, 23% were White, 14% were Latino/a, 14% were Asian American, 5% were of another race, and less than 1% were Native American.

Omnibus analysis. Across the 77 studies of client perceptions, the random effects weighted average effect size was $d = .33$ ($SE = .07$, $p < .00001$, 95% Confidence interval $= .19$ to $.48$). Effect sizes ranged from -1.10 to 3.49, with the index of heterogeneity across studies being statistically significant, $Q_{(76)} = 764.0$, $p < .001$, suggesting that systematic effect size variability was unaccounted for. Therefore, additional analyses were conducted to determine the extent to which the variability of the effect sizes was moderated by other variables.

Publication bias. The first step taken was to examine the possibility that the results from the 77 perception studies were moderated by the publication status of the research manuscript. The difference between published vs. unpublished investigations of an actual educational intervention reached statistical significance ($Q = 3.67$, $p = .06$), with 46 published studies having an average effect size of $d = .45$, and 31 unpublished studies having an average effect size of $d = .17$. The size of this difference suggested a high likelihood of publication bias affecting the results if there were reasons to believe that large numbers of unpublished studies remained unconsidered in meta-analysis (i.e., if unpublished studies were insufficiently represented in the sample). However, with 31 unpublished studies included in the analysis (40% of the total number in the meta-analysis), the possible threat of publication bias may have been mitigated. Nevertheless, additional analyses were conducted to address that concern.

As above, a fail-safe N (Begg, 1994) was calculated, which indicated that at least 3,981 additional studies averaging $d = 0$ would need to be found to render negligible ($d < .10$) the results of the 77 perception studies that were obtained. It seemed unlikely that 3981 studies with null results had evaded our extensive literature search.

Next, the effect sizes were plotted against the sample size of the study in a standard "funnel graph" (Begg, 1994). When the data were plotted for the 77 studies investigating client preference for therapist race, the results demonstrated the expected inverted funnel shape, with only a few apparently "missing" low-N studies of low (or negative) magnitude effect sizes. This finding greatly reduced the concern of possible publication bias adversely impacting the results.

As a final step, a *trim and fill* analysis (Duval & Tweedie, 2000a, 2000b) was conducted to estimate the number of missing studies due to publication bias. In the current study, the recalculated random effects weighted mean effect size remained $d = .33$ ($p < .00001$) because no studies were *trimmed* from the analyses. Thus publication bias did not appear likely to be a threat to the results obtained in this meta-analysis.

Moderation by continuous level variables of study and client characteristics. Data were extracted for the same continuous level variables described previously in Meta-analysis 1. Random effects weighted correlations were run between those and the effect sizes obtained within each study. As can be seen in Table 1 only a few of the correlations reached a moderate level of magnitude. The correlation between percentage of White clients and the effect sizes reached a moderate level of magnitude ($r = -.29, p = .10$). This finding indicated that the lower the number of White clients, the stronger the effect of perception of the therapist in the match suggesting that White clients saw therapists in a more positive light when they were not ethnically matched. The correlation between percentage of Asian American clients and the effect sizes also reached a moderate level of magnitude ($r = .58, p = .05$). This finding suggested that the higher the number of Asian American clients, the stronger the effect of perception of the therapist in the match. In other words, when there were more Asian American clients in the study there was a greater tendency to perceive the therapist positively when they were racially/ethnically matched; when there were fewer Asian American clients in the study they were less likely to see the therapist positively when they were racially/ethnically matched.

Moderation by categorical level variables of study and client characteristics. Data were extracted for categorical variables: type of match observed (racial vs. ethnic),

client language use, client/therapist language match, client socioeconomic status, schema

for operationalization of match, type of racial comparisons, and research design type.

Differences across these variables were analyzed using random effects weighted ANOVA

as shown in Table 3. No differences were observed across most of the variables including

type of match, language use, language match, approach, participant SES, or participant

gender. Two results were found that were statistically significant at the $p < .10$ value. The

results were also found to differ ($p = .04$) across the type of racial comparison conducted.

The effect was strongest when the clients were either Black or Asian American. When

multiple comparisons were made (which comparisons most often include White clients)

the effect sizes were of much lower magnitude than when the comparison involved solely

Black or Asian American clients. This same trend was not found with Latino/a clients

and may be due to the small number of studies included in this analysis ($k = 5$). The

results were also found to differ based on research design type. In analogue studies the

effect size was significantly reduced as compared to when an actual therapist was being

evaluated. This supports the discrepancy between the outcome and the preference studies;

in the abstract people preferred racial/ethnic matching but in actual treatment

racial/ethnic matching seemed to have little impact.

Results of Meta-Analysis 3: Studies of Client Outcome

Finally, a third meta-analysis was conducted to determine the effects of the

independent variables on client outcome. The following section presents the results for

the descriptive information, omnibus analysis, publication bias, and moderation by both

continuous and categorical level variables of the study and client characteristics.

Table 3

Weighted Average Effect Sizes across Categorical Variables for Meta-Analysis 2
(Perception studies)

Variable	Q	p	d	95% CI	k
Type of Match	.06	.81			
Racial			.37	[.20, .53]	60
Ethnic			.24	[-.08, .55]	16
Language Use	1.1	.29			
English Proficient			.37	[.12, .53]	63
Uncertain Proficiency			.18	[-.15, .50]	14
Language Match	2.0	.16			
English Only			.37	[.22, .52]	67
Possible Match			.08	[-.29, .46]	10
Approach	.4	.82			
Race of Therapist Varies			.35	[.16, .54]	45
Exact Match			.24	[-.07, .55]	17
Therapist X Client Matrix			.27	[-.07, .61]	14
Racial Comparisons	8.6	.04			
Multiple Comparisons			.18	[-.01, .37]	43
Black Clients vs. non-Black Therapists			.67	[-.38, .95]	19
Latino Clients vs. non-Latino Therapists			.18	[-.35, .70]	5
Asian Clients vs. non-Asian Therapists			.51	[.02, 1.0]	6
Design Type	3.1	.08			
Actual Treatment			.22	[.04, .41]	45
Analogue			.48	[.26, .69]	32
Socioeconomic Status	1.3	.52			
Lower			.43	[.13, .72]	18
Lower-Middle			.26	[.08, .45]	45
Middle			.44	[.11, .78]	14

Descriptive information. Statistically non-redundant effect sizes were extracted from 52 outcome studies. Across these studies, data were reported from a total of 117,982 participants, with an average of 2,226 participants per study (range = 24 to 29,417). Participants were on average 29 years old (range = 8 to 44); 52% of participants were female; 31% were White, 29% were Black, 20% were Asian American, 6% were Latino/a, 3% were of another race, and less than 1% were Native American.

Omnibus analysis. Across the 52 outcome studies, the random effects weighted average effect size was $d = .09$ ($SE = .02$, $p < .00001$, 95% Confidence interval = .05 to .13). Effect sizes ranged from -1.10 to 1.78, with the index of heterogeneity across studies being statistically significant, $Q_{(51)} = 293.0$, $p < .001$, suggesting that systematic effect size variability remained unaccounted.

Publication bias. Again the possibility that the results presented above were moderated by the publication status of the research manuscript was examined. In the present study, the average random effects weighted effect size across 34 published manuscripts was $d = .07$, whereas the average effect size for 18 unpublished manuscripts was $d = .11$, which difference did not reach statistical significance ($Q = 0.8$, $p = .41$).

Next a fail-safe N (Begg, 1994) was calculated. Based on this calculation, at least 1223 additional studies averaging $d = 0$ would have been needed to render negligible the results of the 52 studies that were obtained. It seemed improbable that at least 1,223 studies with null findings were unaccounted for in the literature; thus it was reasoned that publication bias did not adversely impact the results reported above.

The effect sizes were then plotted against the sample size of the study in a "funnel graph" (Begg, 1994). When the data were plotted for the 52 studies investigating client

preference for therapist race, the results demonstrated the expected inverted funnel shape, indicating no evidence of publication bias.

As a final step, a "trim and fill" analysis (Duval & Tweedie, 2000a, 2000b) was conducted to estimate the number of missing studies due to publication bias. In the current study, the recalculated random effects weighted mean effect size remained $d =$ .085 ($p < .00001$) because no studies were "trimmed" from the analyses. Thus publication bias did not appear to be a likely threat to the results obtained in this meta-analysis.

Moderation by continuous level variables of study and client characteristics. Data were extracted for the same variables described previously. Random effects weighted correlations were run between those and the effect sizes obtained within each study. As can be seen in Table 1 only a few of the correlations reached a moderate level of magnitude. The correlation between therapist gender and the effect size within the study reached moderate magnitude ($r = -.26$), although the level of statistical significant did not exceed $p < .10$ likely due to the few number of studies included in that analysis ($k = 21$). Nevertheless this finding may suggest that the salience of racial/ethnic match was greater with studies with greater percentage of male therapists as opposed to female therapists. That is, client outcomes may have benefited more from racial/ethnic matching when therapists are predominantly male. Another correlation of moderate magnitude was between client age and the effect size observed within studies. In this case, the observed correlation of $r = .24$ indicated greater salience of racial/ethnic match among clients from older age groups. Hence it might be that racial/ethnic match improves client outcomes particularly for clients from older as compared to younger age cohorts. This finding may have been associated with client acculturation level. However, those analyses were not

conducted and remain to be explored in future research. The two statistically significant correlations observed between percent of Native American client and clients of other groups were likely unreliable estimates of the observed association due to the very few number of studies included in these analyses ($k = 3$, $k = 7$). Hence these two correlations were deemed uninterpretable.

Moderation by categorical level variables of study and client characteristics. Data were extracted for the same categorical variables described previously. Differences across these variables using random effects weighted ANOVA were analyzed as shown in Table 4. There were no significant differences among any of the variables. These variables did not seem to impact to any degree the magnitude of the effect size. It was also interesting to note that the effect sizes only range from -.02 to positive .13. This range of effect size differences was so small that the variables clearly had no impact upon client outcome in these particular studies.

Table 4

*Weighted Average Effect Sizes across Categorical Variables for Meta-Analysis 3
(Outcome Studies)*

Variable	Q	p	d	95% CI	k
Type of Match	.13	.72			
Racial			.08	[.03, .13]	41
Ethnic			.10	[-.07, .20]	6
Language Use	.10	.75			
English Proficient			.08	[.03, .13]	33
Uncertain Proficiency			.09	[.03, .16]	19
Language Match	3.1	.38			
English Only			.07	[.01, .13]	31
Targeted Match			.09	[-.07, .25]	3
Possible Match			.13	[.06, .21]	16
No Language Match			-.02	[-.20, .17]	2
Approach	4.4	.22			
Race of Client Varies			.02	[-.05, .10]	18
Race of Therapist Varies			.08	[-.14, .30]	3
Matched vs. non-Matched			.13	[.07, .19]	23
Therapist X Client Matrix			.08	[-.01, .17]	8
Racial Comparisons	.03	.98			
Multiple Comparisons			.09	[.05, .13]	39
Black Clients vs. non-Black Therapists			.11	[-.14, .36]	6
Asian Clients vs. non-Asian Therapists			.08	[-.08, .24]	4
Design Type	.02	.89			
Archival			.10	[.04, .16]	21
Comparison Groups			.09	[.03, .15]	25
Socioeconomic Status	.34	.56			
Lower			.08	[.03, .13]	30
Middle			.10	[.04, .17]	22

DISCUSSION

Findings of Study

The results of the three meta-analyses reported here shed light on the effects of ethnic matching on the mental health treatment of clients of color. These studies considered client preference for ethnic matching, client's perceptions and evaluations of therapists based on ethnic matching, and client outcome as a function of ethnic matching. They also considered a number of different variables and factors that could potentially moderate the effects of ethnic matching on those outcomes.

The results of all three meta-analyses confirm trends identified in the previous research literature. Ethnic matching is moderately to strongly related to client preferences but minimally related to client outcomes. These results are consistent with the results of a previous meta-analysis conducted by Coleman et al. (1995) and literature reviews conducted by Flaskerud (1990) and Karlsson (2005). Clients of color consistently indicate a strong preference for ethnically similar therapists over ethnically dissimilar therapists. Clients of color also tend to evaluate ethnically similar therapists more positively than ethnically dissimilar therapists. However, the effect of ethnic matching on client perceptions of actual therapists is not as strong as on client preference for ethnic matching prior to treatment. The result of the third meta-analysis on client outcome reported here were also consistent with the results of previous meta-analyses conducted by Maramba and Nagayama Hall (2002) and Shin et al. (2005). Clients do not appear to experience clinically significant improvements in treatment outcomes when they are ethnically matched.

As documented in the first meta-analysis in this manuscript, the results of studies of client preference were moderated by race. Clients of color indicated a very strong

preference for therapists of the same ethnicity while White clients indicated a small to

moderate preference for therapists of their same ethnicity. Hence ethnic matching

appears most salient for clients of color, as would be expected (Sue, 1998).

The results of the second meta-analysis indicated that clients tend to perceive

ethnically matched therapists in a somewhat more positive light than they do ethnically

dissimilar therapists. As with the first meta-analysis, these results were also moderated

by client race. The differences in perception and evaluation of therapist across matched

vs. unmatched conditions were stronger among people of color than among White clients.

The finding that client ethnicity moderated both client preference for ethnic

matching and client perception of ethnically matched therapist is not surprising given

previous literature investigating the impact of ethnic matching on clients of differing

ethnic backgrounds (Griffith & Jones, 1979; Lopez, Lopez, & Fong, 1991; Proctor &

Rosen, 1981; Sattler, 1977; Wolkon, Moriwaki, & Williams, 1973). The results of this

meta-analysis, however, add to existing literature by aggregating the limited number of

studies investigating the effects of ethnic matching on clients of color who are not Black

and clarifying some of the mixed results that were found in some ethnicity specific

studies on ethnic matching backgrounds (Atkinson, 1983; Atkinson, Maruyama, &

Matsui, 1978; Karlsson, 2005).

Although client outcomes were not improved substantially when clients were

matched with their therapists by race, their preferences and perceptions may indirectly

influence the likelihood of their utilizing mental health services and the likelihood of

their remaining engaged in those services (Zane et al., 2005). The minimal direct impact

of ethnic matching upon client outcome suggests that attention to this issue could more

productively be focused upon the process of therapy (Sue, 1988). For example, future inquiry could investigate how clients benefit from therapy with an ethnically dissimilar therapist despite a clear preference for an ethnically similar therapist and a slightly more negative perception of an ethnically dissimilar therapist compared to an ethnically similar therapist.

The pattern of different findings across the three types of variables evaluated (preference, perception, and outcome) can be explained, in part, by the very nature of those variables. Client preference for therapist race is the most straightforward variable; it directly measures client attitudes about ethnically matched therapists. Evaluations of client preferences isolate race; no other variable enters into consideration. By comparison, client perceptions of their actual therapists is more complicated; many factors other than race enter into the equation, including variables more relevant to client evaluations, such as therapist skills and dispositions. Client outcome is by far the most complicated variable, with dozens if not hundreds of factors impacting it, only a few of which would be related to therapist race. Thus the effect of ethnic matching appears to become diminished as more factors become involved.

This is hardly surprising and is consistent with Sue's (1988) comment that "ethnicity of therapist or client and ethnic match are distal variables; consequently, weak or conflicting results are likely to be found between ethnic match and outcome" (p. 306). However, it is remarkable that a variable so distal and so seemingly indirect as therapist race would exert any influence at all upon client outcome. The magnitude of the difference in impact is very small but similar to that found between different approaches to treatment (humanistic vs. cognitive behavioral) (Messer & Wampold, 2002). Given the

extensive emphasis upon such variables as race and theoretical orientation in the literature, the very small practical difference made by these variables cannot be dismissed as trivial. There are very few therapist variables that substantively impact aggregate client outcomes; the amount of existing variance to be explained is minimal from the start. It is also important to consider that the studies included in this meta-analysis varied in terms of type of treatment and length of treatment, such that the data could have been minimal because the treatments themselves resulted in small differences to begin with. However, it is crucial to remember that the results of this meta-analysis indicate that ethnic matching has very little impact on client outcome.

Based on this finding it seems that research attention would be best spent focusing on the process of therapy and other variables that could have a greater impact on client outcome than ethnic matching, such as therapist multicultural competence, congruence of therapist, and client racial identity status. Variables such as these may further increase the amount of variance explained in client outcomes and may therefore be more deserving of research attention (APA, 2003; Arredondo & Perez, 2006).

Differential Results that Warrant Future Research Attention

There were several interesting findings in the meta-analyses that merit future research attention. The following section includes a discussion of these findings and potential areas of future investigation.

Meta-Analysis 1: Client preference, time, gender, and race. An interesting finding of the first meta-analysis (client preference studies) concerned the possibility of a shift in client preferences over time, with more recent studies demonstrating preferences of lower magnitude relative to studies conducted in previous decades. There are a number of

possible explanations for this apparent trend. One of the most salient possibilities is the

change in social and political climates in North America (Arredondo & Perez, 2006).

Although there is evidence suggesting that racism is still a major concern in our society,

earlier studies took place at a time when racial tension was more blatant and explicit

(Dovidio, 2001; Dovidio, Gaertner, Kawakami, & Hodson, 2002). With race and racism

being more salient and overt in the past, it seems reasonable to assume that clients would

have had a stronger preference to be seen by a therapist of their same ethnicity, with the

possibility of racism being reduced.

There are, however, a number of other potential explanations for the finding of

apparent differences in the salience of ethnic matching over time. One possible

alternative explanation is the fact that studies conducted recently have included more

White participants than studies in previous decades, which were more targeted to ethnic

minority populations. Given that Whites demonstrated less preference for ethnically

matched therapists, the trends observed over time could be confounded by the increasing

prevalence of White clients included in the research samples. Another alternative

explanation is the possibility that researchers who conducted earlier studies may have had

greater motivation to focus attention on oppressed groups who were then

underrepresented in the professional literature and thus had reason to emphasize the

possibility of ethnic bias within the profession. In recent decades many researchers have

emphasized the importance of having researchers recognize their biases when conducting

multicultural research and be willing to ask difficult questions that may or may not

support their cause (Scarr, 1989). It is also possible that people of color are more exposed

to and aware of mental health services now than 30 years ago, such that any opinion about mental health services would have moderated over time.

Another interesting finding of the meta-analysis of client preferences concerned participant gender composition. Studies with greater proportions of men tended to have data in which greater preferences for ethnically matched therapists were expressed. Some research findings that men demonstrate more bias than women could explain this trend (Ekehammar & Sidanius, 1982; Qualls, Cox, & Schehr, 1992). Men may also be less inclined to seek mental health treatment than women, such that men might be more nervous (guarded/protective) when in mental health settings (Takeuchi & Cheung, 1998). In addition, society in general has more racial bias against men of color than women of color, perhaps making it so that men of color tend to feel more comfortable with therapists of their same race/ethnicity. It is possible, however, that other factors indirectly related to gender are what truly moderate this finding. For example, the finding of differences across gender might possibly be related to differences in pre-existing cognitive patterns across men and women rather than gender per se.

The most salient finding in the first meta-analysis was the clear difference in preferences across races. As mentioned previously, there appears to be a relationship between the ethnicity of the client and preference for ethnic matching, with clients of color expressing greater preference for ethnic matching than White clients. Again, there are number of possible explanations for this finding. One such explanation is that clients of color may be influenced by social dynamics of racial mistrust due to historical oppression (Whaley, 2001) and maybe therefore feel more comfortable with same race therapists. Another possible explanation is that clients of color may not have thought

about the option of having a same race therapist, since there are so few in the profession, such that when offered the opportunity (hypothetically), they would embrace it. Clients of color may also attribute therapist's understanding of the client's personal experiences to racial/cultural variables (worldview similarity) and may therefore indicate a preference for same race therapists because of the assumption that they will be better understood (Kelly & Strupp, 1992).

A possible explanation for White clients expressing lower preference for ethnic matching is that White clients would appear "racist" if they expressed preference for same-race therapists. Therefore, despite the fact that White clients may possibly have a preference for ethnically matched therapist, they may be more hesitant to acknowledge that preference.

There are also a number of other possible explanations for the differences observed across client race. One such explanation it the possibility that the participants in the study were cognizant of the fact that race was an explicit focus of the research study in which they were participating. Being part of a research study may have made race and ethnicity a more salient factor than it would have been in a naturalistic setting where race is merely one of dozens of factors under consideration by the client. This dynamic may have been especially salient for clients of color, who were made more aware of their ethnicity when asked about their ethnicity.

Meta-Analysis 2: Client perception and ethnicity. Similar to first meta-analysis (client preference), an interesting finding of the second meta-analysis (client perception) was the fact that the ethnicity of clients appears to moderate the effect of ethnic matching on the client's perception of the therapist. Specifically, in studies with smaller numbers of

White clients the effect of ethnic matching on perception of therapist was more salient. Moreover, White clients report perceiving therapists more positively when they were not ethnically matched. In studies with large numbers of Asian American clients the effect on ethnic matching on perception of therapist was also more salient; Asian American clients reported more positive perception of therapist when they were ethnically matched.

Again, as with the first meta-analysis, it is possible that White clients expressed a more positive perception of ethnically dissimilar therapist compared to White therapist because reporting a more positive perception of a White therapist would be considered "racist." It is also plausible that for White clients with limited previous interactions with people of color, the novelty factor of interacting in an intimate setting with someone of a different ethnicity may have intrigued them or even bolstered their positive perceptions of the therapist if their initial expectations had been low.

The finding that Asian American clients have a more positive perception of ethnically matched therapist than of ethnically mismatched therapist is somewhat surprising given opposite finding in previous research on internalized racism (Alvarez & Helms, 2001). In reviewing the studies with Asian American clients included in this meta-analysis a trend was noticed where a number of the perception studies with Asian American clients were analog studies conducted in universities in Southern California. It is possible that this finding is a product of research design or the samples included in the study. For instance, college campuses in Southern California tend to have large percentages of Asian American students, with an accompanying ethos affirming Asian American identity. These considerations could have influenced the particular findings of

pro-Asian American perceptions among participants in the studies included in the second meta-analysis.

There are likely a number of alternative explanations for the other findings of the second meta-analysis (client perceptions). It is possible, for example, that the setting of the study or the settings where the clients receive mental health services impact the client's perception of therapist more than the therapists ethnicity. Many clients of color, for example, might have received services in mental health clinics in inner cities where resources may be limited. It is possible that the quality of services in these settings is lower than that provided in private clinics in suburban settings; hence, clients in public treatment facilities may perceive therapists more negatively in general - making indirect factors such as ethnic matching to have a larger impact in these settings than might be the case otherwise (i.e., any factor that enhances favorable perceptions should be more salient in a setting where perceptions are not necessarily favorable at the outset).

Meta-Analysis 3: Client outcome, gender of therapist, and age of client. The overall results of third meta-analysis (client outcome) indicate that ethnic matching has only a minimal impact upon on client outcome; therefore, moderator variables should be interpreted with caution. Two variables appeared to moderate this very limited effect of ethnic matching on client outcome. The first of these variables is gender of therapist, with ethnic matching having the greatest impact in studies with large numbers of male therapists. As with first meta-analysis, this may be the result of possibly greater racial biases among men than women; if White male therapists are perceived by clients of color as being biased, therapeutic outcomes may be impacted. However, there could be many possible alternative explanations for this finding. For example, male therapists are more

likely than female therapists to work in settings where clients have been court ordered or mandated to treatment (Takeuchi & Cheung, 1998). Individuals mandated to counseling may have a strong sense of "us vs. them" and may see ethnically similar therapists as being on their side as opposed to "part of the system." Future research will need to sort out the relative merit of possible explanations such as these.

The second variable that was found to moderate clients outcomes as a function of ethnic matching was age of client, with ethnic matching having greatest impact in studies with larger percentages of older clients. This trend may be the result of the social and political climates that have changed over time, with older clients having experienced greater overt racial oppression in the past compared to contemporary generations (Choma & Hodson, 2008). Having lived at a time when racial tension was more widespread and blatant may have resulted in more racial mistrust, which mistrust would hypothetically diminish through ethnic matching (Whaley, 2001). It is also possible, however, that these results are due to other factors. For example, it is possible that older clients receiving services in mental health settings may be characterized by more severe psychopathology (Speer et al., 2004), since older individuals have a lower propensity to seek out mental health services on their own compared to younger populations. Clients with more severe symptoms could be expected to gain more as a function of therapy relative to clients with less severe symptoms (i.e., regression to the mean). Thus, symptom severity, rather than age, may partially explain the results found. However, because these meta-analyses did not evaluate such variables as symptom severity, future research will need to investigate explanations of the differences observed in client outcomes across age.

Strengths of the Meta-Analyses

One of the benefits of meta-analyses is their ability to investigate both general and specific results (Cooper & Hedges, 1994; Matt & Navarro, 1997). The current study examined the effects of ethnic matching with greater precision and accuracy than could have been done through a narrative review of individual studies. The use of meta-analytic methods allowed for the aggregation of individual studies, which increased the sample size of observations and decreased the standard error of the estimates. According to Matt and Navarro (1997):

> Whereas individual outcome studies inform us about effects of *specific* interventions, in *specific* patient samples, in *specific* settings, and with respect to *specific* measures, meta-analysis teaches us about generalized effects of *classes* of interventions, *classes* of patients, *classes* of settings, and *classes* of measures.
> (p. 3)

The use of meta-analytic methods potentially provides estimates that are less biased than the majority of individual studies (Cook & Leviton, 1982; Matt & Cook, 1994) thus yielding findings with greater generalizability than individual studies or narrative reviews of the literature.

These three meta-analyses also investigated the effects of moderating variables and study characteristic variables in ways that traditional narrative literature reviews do not allow. Again, aggregating individual studies allowed analyses to be conducted across study characteristics yielding more information than would be possible otherwise.

The three meta-analyses synthesized a rapidly growing body of literature of studies. They improved upon previously published meta-analyses in several ways. First,

the number of studies included in these meta-analyses is much higher than the number of studies included in previous meta-analyses. This allows for greater confidence in the results. A second strength is the fact that three different types of outcomes were investigated. Examining the effects of ethnic matching on client preferences, client perceptions of therapists, and client outcomes allowed for better understanding of the differential effects of ethnic matching. A third strength of these three meta-analyses is the number of potential moderator variables that were considered and analyzed, which allowed for a more detailed and thorough understanding of the effects of ethnic matching.

Limitations of the Meta-Analyses

Meta-analytic methods, like all other research methods, are not free from limitations and the meta-analyses conducted here include several of these limitations. Although the majority of these limitations are minor, the five listed below warrant further discussion.

First, as is true of any meta-analysis, the quality, methodology, and research design of each individual study included in the meta-analysis influences the results of the meta-analysis (Cooper, 1998; Cooper & Hedges, 1994; Matt & Navarro, 1997). Because the three meta-analyses included studies of varying quality, it is possible that systematic sources of error had been introduced at the study level that subsequently impacted the results in the aggregate.

Second, the information extracted from studies included in the meta-analysis can only be as precise as the information reported in the study. This is particularly problematic when results are somewhat ambiguous. For example, studies that reported results as "not significant" often said little, if anything, about the magnitude and direction

of the results. To compensate for this lack of information, effect sizes were coded as having a value of zero, when in reality the effect sizes were likely small but greater than zero. Replacing unreported effect sizes with zero is a conservative procedure that may have diminished the magnitude of the overall effect size. Matt and Navarro (1997) reviewed a meta-analysis in which 540 zero effects were combined with 1,828 reported effect sizes. Including these 540 zero effect size studies resulted in the overall effect size dropping from .93 to .72; a 23% decrease. Their recommendation was that future researchers be explicit in reporting the magnitude and direction of effect size that were considered "not significant" rather than reporting p-values alone.

Third, an additional limitation related to study methodology particularly pertinent to the first meta-analysis (preference studies) is that most of the studies included were analogue studies, wherein individuals were surveyed regarding a preference for ethnic matching *if* they were to seek counseling. This means that the participants in the studies were not necessarily mental health clients. Thus it is uncertain whether hypothetical differences in preferences differ from preferences of actual mental health clients.

Fourth, an additional potential limitation of the three meta-analyses is the fact that they could not control for threats to study internal validity such as experimenter bias, which may have influenced the overall effect sizes obtained. Researchers investigating racial and ethnic variables may have a vested interest in the topic, which could indirectly result in an inadvertent inflation of the magnitude of the results obtained. Research on racial and ethnic variables in general would likely benefit from having critical observers involved in the research and from incorporating other methodological steps to reduce threats to internal validity such as experimenter bias.

Fifth, a global limitation across all three of the meta-analyses concerns the nature of the topic of ethnic matching. The topic of ethnic matching was originated as an issue pertaining to clients of color. Nevertheless, the analyses treated the topic globally, including Whites. Hence, the results specific to clients of color are a more accurate evaluation of the construct as originally conceived by multicultural scholars than the global results inclusive of White clients.

A related point is that, as discussed in the introduction section, there is a discrepancy between the commonly used terminology of ethnic matching and the reality of matching. Studies on "ethnic" matching are often studies on "racial" matching. In this study, the term "ethnic matching" was retained for purposes of aligning with the current literature. However, it seems inaccurate to continue the practice and it is recommended that in future studies researchers specify if they are investigating ethnic matching or racial matching.

Implications for Future Research

An interesting finding from these meta-analyses that warrants future research is the finding that despite evaluating ethnically similar therapists in a more positive light, clients are able to negotiate the differences in their perception of ethnically dissimilar therapists in such a way as to not affect the outcome of therapy. Future research should investigate this potential impact.

To better align with the construct intended by scholars in multicultural psychology, future studies on ethnic matching could attend more specifically to clients of color; White clients need not be utilized as a comparison group. In these analyses the race of the therapists could vary rather than the race of the client.

Another area that warrants future research based on the discrepancy between client perception and evaluation of therapist and client outcome is the utilization of mental health services by clients of color. It is possible that the discrepancy between these two types of outcomes could be due to the fact that the only clients of color who are willing to negotiate the differences in perception are those who continue to receive services whereas those who feel discomfort negotiating the differences in perceptions and the discomfort drop out of therapy.

The findings that clients tend to prefer same race therapists and tend to perceive same race therapists more positively than therapists of a different race also warrants future research. What specific variables most influence this differential perception of therapists across race? Is it just that clients are not accustomed to communication patterns of people who are different from themselves? Could it be that client and therapist's values do not match? Could it be that the treatments used do not match the client's cultural background? Could it be a matter of racial bias and a simple preference for the client's own group? All of these questions deserve future investigation and would be informative in helping us advance mental health services available to clients of color.

Finally, as suggested by Zane et al. (2005), future research needs to focus on the notion of worldview or cognitive matching rather than matching by the more distal variable of ethnicity. Future research should attend to matching problem perception, coping orientation, and treatment goals. Focusing our attention on important aspects of therapy that are significant and malleable seem much more fruitful than focusing attention on fixed traits such as ethnicity.

Implications for Practice

First and foremost, it is important to recognize that even though we live in a multicultural society, the practice of matching clients with therapists of the same ethnicity is not always feasible. There are significantly fewer therapists of color than would be necessary to meet the demands for ethnic matching (APA, 2005). Although the results of the first meta-analysis of client preferences indicate that therapists who are mismatched on ethnicity may need to work harder to maintain even equally positive client perceptions, the results of the outcome meta-analysis indicate that mismatched therapists can be nearly as helpful with respect to outcomes. The focus, therefore, needs to be on working effectively and paying more attention to the factors that do influence outcome and help clients work through preference and perception biases. Specifically, rather than focusing on ethnic matching, more emphasis can be placed on modifying treatments to match clients' worldviews (Griner & Smith, 2006), therapist multicultural competence (Arredondo & Perez, 2006; D.W. Sue, Arredondo, & McDavis, 1992), and professional skills development (Cates, Schaefle, Smaby, Maddux, & LeBeauf, 2007; Smith et al., 2006).

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