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Community Mental Health Services for Ethnic Minority Groups: A Test of the Cultural Responsiveness Hypothesis

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This study investigated services received, length of treatment, and outcomes of thousands of Asian-American, African-American, Mexican-American, and White clients using outpatient services in the Los Angeles County mental health system. It tested the hypothesis that therapist–client matches in ethnicity and language are beneficial to clients. Results indicate that Asian Americans and Mexican Americans underutilized, whereas African Americans overutilized, services. African Americans also exhibited less positive treatment outcomes. Furthermore, ethnic match was related to length of treatment for all groups. It was associated with treatment outcomes for Mexican Americans. Among clients who did not speak English as a primary language, ethnic and language match was a predictor of length and outcome of treatment. Thus, the cultural responsiveness hypothesis was partially supported.

In the past, investigators have typically found problems or deficiencies in our delivery of mental health services to members of ethnic minority groups, such as American Indians, Asian Americans, African Americans, and Latinos. These problems have included difficulties in performing valid psychological assessments (Jones & Thorne, 1987), differential or discriminatory forms of treatment (Yamamoto, James, & Palley, 1968), therapist preferences for client characteristics that place ethnic minorities at a disadvantage (Schofield, 1964), underutilization of services on the part of some ethnic groups (Snowden & Cheung, 1990), high premature termination rates, and ineffectiveness of traditional mental health services for ethnic minority clients (President's Commission on Mental Health, 1978). For example, in a study by Sue (1977) on nearly 14,000 clients in the mental health system in the Seattle area, ethnic minority clients were found to vary in utilization patterns and to prematurely terminate treatment. Asian Americans and Latinos severely underutilized, whereas African Americans and American Indians overutilized, services in comparison with their respective populations. All ethnic minority groups tended to drop out of treatment very quickly. About half of them terminated from treatment after *one* session compared with the 30% dropout rate for Whites. Ethnicity was a significant predictor of premature termination even after other client demographic variables and treatment variables were controlled. From the study, several recommendations for "culturally responsive" strategies were made: (a) training of personnel to work with culturally dissimilar clients, (b) employment of more bilingual and bicultural mental health workers, and (c) establishment of parallel services that are specifically devoted to ethnic minority groups.

The nation's public mental health systems during the past decade have attempted to grapple with the problems of providing accessible and effective services to diverse populations. To date, no large-scale study has tried to examine in detail the relationship between the adoption of culturally responsive interventions in the mental health system and outcomes for minority group clients. One study has recently tried to link utilization and premature termination patterns of ethnic minority clients with changes in the mental health system. O'Sullivan, Peterson, Cox, and Kirkeby (1989) examined the status and situation of ethnic clients in the Seattle mental health system, a decade after the study by Sue (1977). Using some of the same variables reported in the earlier study, they found that the situation had improved considerably. Ethnic minority groups for the most part were no longer underutilizing services; their dropout rates had been reduced and were not much different from that of Whites. O'Sullivan and his colleagues attributed the changes to the increasing cultural responsiveness of the system to underserved populations. More ethnic-specific mental health centers had been created. Increasing numbers of service providers from diverse groups had been hired, which has been found to be directly related to African-American and Asian client utilization of services (Wu & Windle, 1980). Furthermore, the mental health system encouraged and funded innovative treatment programs for ethnic communities.

The implications derived from O'Sullivan et al.'s (1989) study are of major significance for at least two reasons. First, the work presents a more optimistic view of the status of our mental health system for ethnic clients. It raises the possibility that criticisms of the responsiveness of the system should be tempered. Second, and more important, the results suggest that

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years of attempting to be "culturally responsive" have had some degree of success. However, replication of the findings from other mental health systems is necessary. Another important task is to address the question, Are ethnic minority clients faring better *because* of culturally responsive strategies? Such a causal link was inferred by O'Sullivan and his colleagues, on the basis of a temporal relationship between initiation of culturally responsive interventions and outcomes (i.e., after changes in the mental health system had occurred, ethnic clients were found to have better outcomes).

One proposition from the cultural responsiveness hypothesis is that the efficacy of psychotherapy is, among many factors, a function of the extent to which therapists can communicate in the language of clients and understand the cultural background of clients (Flaskerud, 1986). Under these conditions, therapists are presumably better able to assess the situation of clients, modify treatment strategies to suit clients, avoid group stereotypes, and form rapport (Comas-Diaz & Griffith, 1988; Jenkins, 1985; Padilla & Salgado De Snyder, 1985). Being proficient in the language of clients who are severely limited in English is clearly advantageous. Use of interpreters by therapists unable to communicate in the language of clients is subject to distortions involving omissions, substitutions, condensation, and changes in focus from the actual messages conveyed between therapists and clients (Marcos, 1979). However, with respect to therapist knowledge of clients' culture, no rigorous tests have ever been conducted to see if therapists' understanding of culture is related to therapy outcomes. Methodological and conceptual problems exist in defining cultural knowledge, in understanding the relationship between cultural knowledge and therapist behaviors, and in specifying what kind of knowledge is important.

In view of the difficulties in studying cultural match, most researchers have reformulated the issue into one involving *ethnic* match: Does ethnic similarity between therapist and client result in better treatment outcomes than those achieved from dissimilar dyads? Obviously, ethnic match is not identical with cultural match because individuals of the same ethnicity may be culturally different. Nevertheless, ethnic and cultural knowledge matches are likely to be highly correlated. Many of our efforts to be culturally responsive have included the recruitment and training of ethnic professionals, so the effects of these efforts should be tested. Although most researchers cite the importance of match, few empirical studies have been conducted. Jones (1978, 1982) found that therapist–client similarity in race (African-American/White) failed to affect more positive client outcomes than did dissimilar dyads. However, clinical analog studies have somewhat supported the position that racial matching results in more positive outcomes (Sue, 1988). The problem in these studies is that previous clinical or analog research included only African-American and not other ethnic minority groups, was not fully crossed (in terms of ethnicity of therapists and clients), or was based on very small numbers of therapists and clients.

Our study examined ethnic utilization and client characteristics, premature termination rates, number of sessions, and treatment outcomes in one of the nation's largest mental health systems. It tested a form of the cultural responsiveness hypothesis—namely, ethnic or linguistic matches between therapists and clients result in less premature termination, increased participation (greater number of treatment sessions), and better client outcomes than do mismatches. In examining the status of ethnic minority groups in the Los Angeles County Mental Health System and the effects of ethnic and language match, our study had some unique features. First, previous studies have been based on relatively small numbers of ethnic clients. Our investigation contained substantial numbers of Asian-American, African-American, Mexican-American, and White clients. Second, whereas match has been examined primarily with African Americans and Whites, the present study included four different groups. Third, a measure, the Global Assessment Scale (GAS; Endicott et al., 1976), was used to assess treatment outcome, so that the investigation included summative (i.e., length of treatment) as well as formative outcome (i.e., GAS) measures.

Method

Data Obtained

Data for the study were supplied from the Automated Information System (AIS) maintained by the Los Angeles County Department of Mental Health. The AIS data were used for the purpose of system management, revenue collection, clinical management, and research. AIS contained standardized information collected (through intake workers, therapists, and clients) from all mental health centers, clinics, and hospitals supported at least in part by the County. The data included information on clients, therapists, and treatment. Although the County has not conducted reliability studies on the data, the information has been audited and verified by the County and State, particularly information relevant to financial matters such as service costs, number and length of treatment sessions, type of treatment provided, and so forth. The County AIS system received the 1985 Award for Excellence from the National Association of Counties. Also, in view of the fact that the Department served a population of approximately eight million people with an annual budget of over $250 million, the data base was extremely large, so that unsystematic coding problems, errors in evaluations, and so forth, would tend to have less impact than in a smaller data base. Information was collected on 600,000 different clients over a 15-year period (1973–1988).

Subjects

From the 15 years of data, only clients entering the outpatient system during the most recent 5-year period were examined. It was at this time that the *Diagnostic and Statistical Manual of Mental Disorders,* 3rd ed. (*DSM–III;* American Psychiatric Association 1980); and later *DSM–III–Revised* (1987) were implemented as the standard diagnostic system. Because the smallest group of clients consisted of Asian Americans (about 3,000), a comparable number of unduplicated client cases from each of the other ethnic groups were randomly drawn for analysis from the original data set. Because some of the analyses required complete data on all client episodes, sample sizes varied for the groups. Members of certain groups such as American Indians and non-Mexican-American Latinos were excluded because their populations were relatively small. The adult clients (18 years of age or older) were unduplicated cases who had completed or terminated from treatment after being admitted for a particular episode. Clients who entered the mental health system solely for assessment or for nonpsychiatric problems were excluded from analysis, because mental health treatment was not the self-reported reason for seeking services. Furthermore, clients who were referred elsewhere after contact with the mental health system

were excluded. These clients may have continued treatment but would appear in the AIS records as having been terminated. The therapists included those who were identified as the primary therapist for the client.

Variables Examined

The study was primarily intended to examine the relationship between therapist–client match (i.e., ethnic and, secondarily, language and gender) and variables such as premature termination rates, number of sessions, and treatment outcomes for the four ethnic groups. Other variables (e.g., demographic characteristics and client's initial level of disturbance) were included in the study largely as covariates.

Clients and therapists. The following client variables were examined: ethnicity, gender, age, marital status, social class (qualification for Medi-Cal), diagnosis, and initial GAS. Age was used as a continuous variable, and marital status was dichotomized into married or not married. For diagnosis, clients were divided into those who had psychotic or no psychotic disorders. It should be noted that information concerning social class status—income, education, and qualification for Medi-Cal—was collected. However, income and education proved to be problematic because of missing data or inability to distinguish between those who had no income and those who had missing data. Therefore, Medi-Cal status (which is similar to medicaid) was used as the socioeconomic variable. Those who qualify for Medi-Cal have incomes, adjusted for number of dependents, near the federal standard of poverty. Individuals who have higher incomes do not qualify for Medi-Cal. Information on the therapist included ethnicity, sex, and primary language.

Match. Ethnic or gender match refers to whether or not the therapist was of the same ethnicity or gender, respectively, as that of the client (e.g., African-American therapist–African-American client or Chinese therapist–Chinese client). In language match, the situation was more complex. Clients indicated what their "primary" language was from a list on the standard information sheet used by the County. Clients might be able to speak more than one language, and actual language spoken during the treatment sessions was not determined. On the other hand, therapists were asked to indicate (up to five) the languages in which they were proficient. Therefore, language match simply referred to whether any of the therapist's report of language proficiency was identical to the client's primary language. Because Asian Americans represent many groups (e.g., Chinese, Japanese, Filipinos, and Vietnamese), language was considered a match only if the primary language was specific within the Asian-American population. Few African Americans or Whites indicated a non-English language as the primary language, so only ethnic (and not language) match was examined for them.

Criterion or dependent variables. Three dependent variables were of interest: (a) Premature termination was defined as failure to return for treatment after one session. Although premature termination can be defined in many ways and clients may improve even if they drop out of treatment, the use of one session allowed us to directly compare the results obtained by O'Sullivan et al. (1989) and Sue (1977), who also used one session as the criterion. (b) Total number of sessions was calculated for those clients who either terminated or completed treatment. Log transformations were performed on the actual numbers of sessions because some clients attended well over 100 sessions, creating positively skewed distributions. However, the estimated effects were expressed in the original units by taking antilogs of the regression coefficients. (c) As a measure of treatment outcome, the GAS rating at termination was used. Clients who dropped out of treatment after one session (from 11% to 19% of clients, depending on ethnicity) did not have a GAS termination score and were excluded from the analysis. The GAS is a measure of the overall functioning of clients. Ratings on the GAS are based on psychological, social, and occupational functioning. Therapists perform the ratings on a 100-point scale from *most severe impairment* (1) to *good functioning in all areas of life* (100). Reliability of the GAS has been high (Endicott, Spitzer, Fleiss, & Cohen, 1976), and the GAS is highly similar to the Global Assessment of Functioning scale used on Axis V of *DSM–III–R*. Although Holcomb and Otto (1988) have questioned the validity of the GAS, Sohlberg (1989) found the GAS to have good concurrent and predictive validity.

Analysis

Overall regression analyses. In order to test the relationship between ethnic (and gender) match and criterion variables, we used logistic regressions for dropping out and multiple regressions for number of sessions and for outcome. Because different client characteristics might be related to, and confounded with, the effects of match on the dependent variables, other client characteristics (gender, age, marital status, socioeconomic status [SES], initial diagnosis, and GAS admission score) were also entered as predictor variables in the regression analyses. Thus, for the regression analyses, the contribution of each predictor variable was controlled in relation to the others by simultaneously entering all the predictor variables into each regression model.

Within-group analyses. In view of the fact that Asian and Mexican Americans had a substantial proportion of clients whose primary language was not English, two additional analyses for each dependent measure were performed, using the same predictors as listed above. First, these two ethnic groups were subdivided into those whose primary language was English *or* non-English, and separate regression analyses examining the effects of ethnic match were used for the subdivided groups. The intent was to test the effects of ethnic match for groups that differ in language. Second, for those whose primary language was not English, three types of match combinations (besides gender) were constructed and used as predictors: ethnic/language match (i.e., both were matched); ethnic/no language match (ethnic match only); and language/no ethnic match (language match only). (This analysis was not conducted for English primary language clients because they were almost always matched in language.) These match predictors were constructed by comparing each with clients who had no ethnic and no language match, after controlling for the other predictors. They allowed us to test language effects as well as ethnic effects. For the more specific within-group analyses, only match and not other predictors (e.g., age, social class, etc.) were reported, because our main interest was match. Although it would have been desirable to enter the variables of ethnic match, language match, and the interaction terms of these variables into a single regression equation, insufficient sample sizes for different cells precluded such an analysis (e.g., only a small number of Mexican-American therapists were matched ethnically but not linguistically with their clients).

Results

Client Characteristics

During the 5-year period, the ethnic breakdowns for clients in the mental health system were 3.1% or 7,136 Asian Americans, 20.5% or 47,220 African Americans, 25.5% or 58,844 Latinos, 43.0% or 99,036 Whites, and 7.9% or 18,205 others. According to estimates for 1985 (U.S. Bureau of the Census, 1989), the percentage of the County population for each of the groups was as follows: 8.7% Asian American, 12.8% African American, 33.7% Latino, 44.2% White, and 0.6% all other. Thus, Asian Americans and Latino Americans were underrepresented, whereas African Americans were overrepresented in

the mental health system in comparison with their respective County populations. (In the comparisons involving utilization, all Latinos were included rather than Mexican Americans because population estimates were made for all Latinos. In the subsequent analyses of the selected samples, only Mexican Americans, who made up the vast majority of Latinos, were included.)

Demographic characteristics are shown in Table 1. Significant ethnic differences among clients were apparent on many of the demographic variables. African Americans had a significantly lower proportion of women, and, along with Mexican Americans, were younger. Asians and Mexican Americans had the highest percentage of married clients, whereas African Americans were least likely to be married. In general, the SES of clients was low, with African Americans having a higher percentage of clients qualifying for Medi-Cal than Mexican Americans, who were higher than Asians and Whites. On the treatment and service variables, only one third of the ethnic clients worked with therapists of the same ethnicity, whereas three quarters of White clients saw White therapists. A small number of African Americans and Whites reported that English was not their primary language, and effects of language were not analyzed for them. In terms of gender match, a little over half of all clients saw same-gender therapists. Mexican Americans tended to have the lowest proportion of clients receiving a psychotic diagnosis, followed by Whites. Initial GAS scores for the groups were highly similar, although Mexican Americans tended to have a higher mean GAS score.

Dropouts From Treatment

Using failure to return for treatment after one session as the criterion for dropping out, considerable ethnic differences were found. In descending order, the percentage of dropouts were 19.4% for African Americans, 15.3% for Whites, 14.6% for Mexican Americans, and 10.7% for Asian Americans. Using the test of significance between two proportions, African Americans had a significantly higher proportion, whereas Asians had a significantly lower proportion of dropouts than did Whites and Mexican Americans (all *ps* < .001). Thus, ethnic minority clients did not as a group show a greater propensity to prematurely terminate treatment.

In order to examine the relationship between client–therapist match (ethnic and gender similarity) and termination, a logistic regression analysis was performed for each ethnic group. The criterion was dropout, and predictor variables included client sex, age, marital status, SES (eligible or not eligible for Medi-Cal), gender match, initial diagnosis (psychotic vs. nonpsychotic), GAS score at admission, and ethnic match. Table 2 shows the estimated effects and significance of each individual predictor variable, controlling for the effects of all other variables. The estimated effects for categorical predictors can be interpreted as the odds ratios of dropping out. Results indicated that for all groups except African Americans, ethnic match resulted in substantially lower odds of dropping out than for unmatched clients. Gender match was associated with lower odds of premature termination among Asian and White clients. Other significant predictors of lower probability of premature termination were higher social class status, being female for Mexican Americans, being older for Whites, having a psychotic diagnosis for African Americans and Whites, and having a higher initial GAS score among Whites. The overall results suggest that ethnic match is a very important consideration for Asian-American, Mexican-American, and White clients in predicting premature termination.

Mean Number of Sessions

There was no overall evidence that ethnic minority clients attended fewer sessions than Whites did. The geometric mean number of treatment sessions for each group was as follows: Asian, 6.3; Mexican American, 5.1; White, 5.1; and African American, 4.0. Asians significantly exceeded Mexican Ameri-

Table 1
Summary of Descriptive Statistics by Ethnic Group

Variable	Ethnicity: Asian American	African American	Mexican American	White
Sample size	3,344	3,415	2,942	3,738
% female	54.6_a	46.6_b	53.0_a	54.2_a
Age in years (*M*)	35.3_a	34.1_b	33.5_b	36.0_a
% married	30.7_a	12.5_c	30.5_a	17.7_b
Medi-Cal (% eligible)	73.5_c	85.0_a	78.7_b	73.3_c
Language (% English)	42.7_d	97.7_b	55.5_c	98.6_a
Ethnic match (%)	31.6_b	33.8_b	30.8_b	74.0_a
Language match (%)	76.3_c	98.8_a	86.5_b	98.4_a
Gender match (%)	52.7_a	55.4_a	55.2_a	56.0_a
Diagnosis (% psychotic)	50.3_a	50.2_a	35.6_c	42.8_b
GAS[a] admission (*M*)	41.5_b	41.6_b	42.9_a	41.8_b

Note. Subscripts refer to significance levels for pairwise comparisons between ethnic groups. Same letter indicates nonsignificant difference; different letter indicates significant difference. For variables testing proportions as denoted by percentages, test for significance of difference between two proportions is used. To control for simultaneous alpha rate, $p < .001$ is used as the significance criteria. For variables testing means, Tukey HSD procedure for pairwise comparison, $p < .05$, is used to reduce the possibility of making Type I errors.
[a] GAS = Global Assessment Scale.

Table 2
Estimated Effect for Match Variables and Covariates Predicting Termination After One Session by Ethnicity

Variable	Ethnicity: Asian American	African American	Mexican American	White
Sex	1.26	0.85	0.71**	0.88
Age	1.00	1.00	1.01	1.01*
Marital status	1.14	1.30	1.20	0.98
Medi-Cal	1.65**	1.84***	2.16***	2.10***
Ethnic match	0.20***	0.96	0.64**	0.70**
Gender match	0.68**	1.05	0.98	0.76**
Diagnosis	0.84	0.63***	0.80	0.75*
GAS[a] admission	0.99	0.99	1.00	0.99*

[a] GAS = Global Assessment Scale.
* $p < .05$. ** $p < .01$. *** $p < .001$.

cans and Whites, who in turn exceeded African Americans, in the mean number of sessions (Tukey HSD was performed; all $ps < .05$).

To examine the relationship between predictor variables and number of sessions, a multiple regression was performed for each group. Results are displayed in Table 3. For each ethnic group, ethnic match was related to greater number of sessions. Gender match was associated with number of sessions only for Mexican Americans and Whites. Other significant predictors of more treatment sessions were higher social class, being a woman (for Whites), having a psychotic diagnosis (for Asian, African-American, and White clients), and having higher initial GAS scores (for Asians and Whites).

Treatment Outcomes

Final GAS scores (after treatment) means for each group were, in descending order, 48.7 (Mexican Americans), 46.9 (Whites), 46.4 (Asian Americans), and 45.4 (African Americans). Paired comparisons using Tukey HSD revealed that African Americans had a significantly lower mean score than did Mexican Americans ($p < .05$). Of course, final GAS scores are not very meaningful in the absence of information concerning initial (pretreatment) scores. In order to better compare GAS termination scores among the different ethnic groups, pairwise comparisons for adjusted means (adjusted for initial GAS score) were conducted. These means were 47.9 for Mexican Americans, 46.8 for Whites, 46.7 for Asian Americans, and 45.8 for African Americans. Results of the pairwise comparisons revealed the following: Mexican Americans > Whites = Asian Americans > African Americans (the two significant differences had $ps < .0008$). Therefore, African Americans were the least likely, and Mexican Americans were the most likely, to improve after treatment.

To determine the effects of match on outcomes, final GAS score was used as the criterion. Because initial GAS score was used as one of the predictor variables, the final GAS score could be used as an indicator of improvement in the multiple regression shown in Table 4. Ethnic match was related to treatment outcome only for Mexican Americans, although it approached

Table 3
Estimated Effect for Match Variables and Covariates Predicting Number of Sessions by Ethnicity

Variable	Ethnicity			
	Asian American	African American	Mexican American	White
Sex	0.96	0.98	1.08	1.11**
Age	1.00	1.00	1.00	1.00
Marital status	0.91	0.99	0.91	1.02
Medi-Cal	0.75***	0.64***	0.74***	0.75***
Ethnic match	1.84***	1.15**	1.35***	1.10*
Gender match	1.05	1.06	1.10*	1.14***
Diagnosis	1.15**	1.21***	1.04	1.18***
GAS[a] admission	1.01***	1.00	1.00	1.01***

[a] GAS = Global Assessment Scale.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4
Standardized Beta Weights for Match Variables and Covariates Predicting Final Global Assessment Scale (GAS) Scores by Ethnicity

Variable	Ethnicity			
	Asian American	African American	Mexican American	White
Sex	.03*	.03*	.06***	.05***
Age	−.01	.00	−.02	.01
Marital status	.00	.06***	.03	.01
Medi-Cal	−.03*	−.03*	−.07***	−.05***
Ethnic match	.03	−.02	.05***	.00
Gender match	.00	.00	−.01	.01
Diagnosis	−.12***	−.08***	−.12***	−.12***
GAS admission	.65***	.74***	.61***	.68***

* $p < .05$. ** $p < .01$. *** $p < .001$.

significance for Asian Americans ($p < .06$). Other significant predictors of positive outcome were being a woman, being married (for African Americans), and having higher SES, nonpsychotic diagnosis, and higher initial GAS scores. Gender match was not related to outcomes. The predictor variables did not account for much of the variance except, not surprisingly, in the case of initial GAS scores.

Within-Group Analyses for Asian and Mexican Americans

As mentioned previously, substantial proportions of Asian and Mexican Americans did not speak English as the primary language. For these individuals, match may be of major importance. In the within-group analyses, two major analyses were conducted. First, clients were dichotomized into two primary language categories, English versus non-English, and logistic regressions were performed for each, using the same criterion (matches, age, GAS admission score, etc.) and predictor variables (length of treatment and outcome) as examined before. Second, for the group that did not speak English as the primary language, sufficient numbers of clients had therapists who either matched or did not match clients in language. This was not the case for clients who spoke English as a primary language because these clients almost always were matched with therapists who were proficient in English. Therefore, for the non-English primary language clients, it was possible to test the effects of different *combinations* of matches: ethnic match only (ethnic/no language), language match only (language/no ethnic), and both language and ethnic match (ethnic/language). In the regression analyses, each combination was compared with no ethnic and no language match, if sufficient numbers of clients were available for the analysis. The other predictor variables (sex, age, GAS admission scores, etc.) were entered into the regression analyses. However, only the match predictor variables are reported because these additional analyses were performed for the purpose of understanding match. Results for the different combinations of match, including gender match, on the three criterion variables are presented in order.

Dropouts. Among Asian Americans whose primary lan-

guage was English, ethnic match approached significance in predicting dropping out ($p < .07$). For those who did not speak English as the primary language, match was beneficial. Ethnic match was significantly associated with lower odds of premature termination (estimated effect = .16, $p < .001$). Gender match was important only for the non-English speakers (estimated effect = .66, $p < .05$). In the second analysis testing the effects of ethnic and language combinations for the non-English primary language clients, match was strongly related to lower probability of dropout for the following conditions: ethnic/language match (estimated effect = .24, $p < .001$); ethnic/no language match (estimated effect = .20, $p < .05$); language/no ethnic match (estimated effect = .16, $p < .001$); and gender match (estimated effect = .55, $p < .01$).

Results for Mexican-American clients, who were divided into two groups on the basis of language, reveal that for speakers of English as a primary language, neither ethnic nor gender match was significantly related to premature termination. However, for the non-English clients, ethnic match was significantly associated with decreased probability for dropping out (estimated effect = .46, $p < .001$). In the regression equation involving non-English primary language clients with combinations of language and ethnicity entered as predictors, ethnic/language match was related to lower odds of dropping out (estimated effect = .62, $p < .05$). Language/no ethnic match as well as gender match failed to be significant. Ethnic/no language match was not entered into the regression equation because of the small proportion of Mexican-American clients who fell into this category. The results of the specific analyses for Asian- and Mexican-American clients showed that ethnic match was important for the non-English rather than English primary language speaking clients. In the case of the non-English primary language clients, having both or having one kind of match involving ethnicity and language was important in reducing odds of premature termination for Asian Americans. For Mexican Americans, having both was important.

Number of sessions. When the effects of ethnic match were examined in the within-group regression analyses for Asian- and Mexican-American clients divided according to primary language, ethnic match reached significance for the following groups: Asians with English as the primary language (estimated effect = 1.48, $p < .001$); Asians with non-English as primary language (estimated effect = 1.94, $p < .001$); and Mexican Americans with non-English as primary language (estimated effect = 1.62, $p < .001$). Gender match failed to achieve significance in the analyses.

Inclusion of the language and ethnic match predictors in combination for clients whose primary language was not English provided a number of significant relationships. For Asians, ethnic/language match (estimated effect = 1.62, $p < .001$), ethnic/no language match (estimated effect = 1.76, $p < .001$), and language/no ethnic match (estimated effect = 1.84, $p < .001$) predicted more treatment sessions. The regression analysis on Mexican Americans also demonstrated that ethnic/language match (estimated effect = 1.28, $p < .001$) and language/no ethnic match (estimated effect = 1.28, $p < .05$) were directly related to number of sessions. Gender match was not important among Mexican Americans or Asian Americans.

Treatment outcomes. The within-group, multiple correlations were examined for Asian and Mexican Americans, divided by primary language. For Asian Americans, ethnic match was important only for the non-English group ($\beta = .04$, $p < .05$). It was also significantly related to positive treatment outcomes for Mexican Americans whose primary language was non-English ($\beta = .05$, $p < .05$) as well as English ($\beta = .06$, $p < .01$).

When looking only at Asians and Mexican Americans for whom English was not the primary language and including combinations of ethnicity and language as predictors, only one significant relationship was found. Asian Americans with both ethnic and language match had better outcomes ($\beta = .06$, $p < .05$). For Mexican Americans, ethnic/language match as well as language/no ethnic match failed to reach significance (again, the ethnic/no language match variable could not be examined for Mexican Americans because of sample size problems).

Several overall conclusions can be drawn from the results for the within-group analyses. First, ethnic match was important for Asian and Mexican Americans who did not speak English as the primary language in terms of premature termination, number of sessions, and outcomes. For English speakers, match was not of significance except for number of sessions among Asian-American clients. Second, for clients whose primary language was not English, the combined match of ethnicity and language was consistently and significantly related to the criterion variables except in the case of treatment outcome for Mexican Americans. For Asians, each match involving ethnicity only, language only, or both was independently related to the length of treatment measures. Third, combinations of match for the non-English primary language clients were stronger in predicting dropping out and number of sessions than in predicting outcomes.

Discussion

The purpose of our study was to examine the status of ethnic minority groups in the Los Angeles County outpatient mental health system and to test a version of the cultural responsiveness hypothesis. Results were encouraging but somewhat mixed as to the adequacy of mental health services for these groups. Asian Americans and Mexican Americans were found to severely underutilize, whereas African Americans overutilized, services in comparison with their local populations. These findings are highly consistent with those found by Sue (1977) in his study of the Seattle mental health system, but at variance with O'Sullivan et al.'s (1989) follow-up investigation 10 years later in Seattle. At this time, it is unclear why such differences exist. Perhaps mental health systems vary considerably in ethnic utilization patterns, making generalizations about ethnicity difficult. The patterns may be influenced by local policies and programs, as well as by characteristics of the ethnic populations. In any event, data from other public mental health systems, as well as from the private sector, are needed.

Process and Outcome Differences

Is there evidence that ethnic minority clients are not faring well in the mental health system? From our data, the most reasonable approach to addressing this question is to examine

the outcome and process findings. With respect to the outcome measure in this study—the GAS—Mexican Americans, Whites, and Asian Americans exhibited greater improvement after treatment than did African Americans. It is disturbing that African Americans showed the lowest rate of positive treatment changes. In terms of dropping out from treatment after one session, the rates in descending order were African Americans, Whites, Mexican Americans, and Asian Americans. African Americans also averaged fewer sessions, whereas Asian Americans attended the most sessions of any group. Thus, the results suggest that many African Americans use the system but tend to exhibit relatively little positive change, terminate quickly, and average fewer sessions than other groups. On the other extreme, Asian Americans avoid using services, but those who enter the mental health system stay in treatment longer. They had better outcomes than African-American clients. The findings suggest that considerable differences exist among ethnic groups and that generalizations concerning all ethnic clients should be avoided.

Culturally Responsive Services

Culturally responsive services have been equated with an increase in ethnic therapists and in those who can speak the primary language of clients who have limited English proficiency. If the proposition is valid, then therapist–client matches in ethnicity and language should be associated with better outcomes. Support exists for the importance of ethnic match, especially in the two length-of-treatment measures—dropping out and number of sessions. In seven of the eight comparisons involving the four ethnic groups and the two length-of-treatment measures, only one (i.e., dropping out for African Americans) failed to reach significance, even after controlling for all other predictor variables. Gender match was associated with lower dropout rates for Asian Americans and Whites and with more sessions for Mexican Americans and Whites. It is unclear why ethnic match failed to be significantly related to sessions for African Americans and why gender match was significant for some groups and not others. Indeed, many interesting findings emerged that have little to do with ethnicity; for example, women in all groups tended to have better outcomes than did men. The overall interpretation and conceptualization of the inconsistencies and the diverse findings are difficult for several reasons. First, given the large numbers of groups and variables examined, some discrepancies and incidental findings are likely to emerge. Second, variables such as social class and diagnosis, which were important predictors of length of treatment, may interact with ethnicity for some groups and not others. Third, genuine differences may exist between groups. In any event, further research is necessary in order to replicate findings and to tease out explanations, particularly in the discrepancies shown for African Americans and for the effects of gender match among the different groups.

Ethnic match failed to be a significant predictor of treatment outcome, except for Mexican Americans. Therefore, ethnic match appears to have a much greater impact on length of treatment than on outcomes. Perhaps interpersonal attraction is increased when one is working with an ethnically similar therapist, and clients may be more motivated to stay in treatment longer. However, such attraction may not strongly influence outcomes. Another possibility is that match may be relatively less important than other variables. The results clearly demonstrate that factors such as gender of client, social class, diagnosis, and GAS admission scores were related to outcomes for all groups. Finally, GAS may not be a sensitive measure of outcome, and multiple measures of outcome would have been desirable.

Interestingly, when Asian-American and Mexican-American clients were divided into those for whom English was or was not the primary language, ethnic match was a significant predictor of dropouts, number of sessions, and outcomes for clients whose primary language was not English. There was also evidence that having both ethnic and language matches was particularly important. Clients who do not speak English as the primary language are likely to be immigrants and less acculturated, and the benefits of match may be more apparent.

Research strategies involving the random assignments of therapist to clients, information on the actual language used in treatment, use of multiple treatment outcome measures, and examination of other factors important in outcomes should be undertaken. Nevertheless, the findings suggest that match is important because it is related to length of treatment. Results for match are more equivocal for outcomes, except for clients who do not speak English as the primary language. The recruitment of bilingual and bicultural ethnic mental health workers for these clients is advisable.

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