Racial/Ethnic Disparities in the Use of Mental Health Services in Poverty Areas

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Racial/ethnic disparities in health and mental health status have received increasing attention. Well-documented gaps in health status are believed to reflect, among other factors, underlying differences in access to care. In the mental health arena, researchers have repeatedly demonstrated differences in rates and patterns of mental health treatment for African Americans, Latinos, and Asian Americans.1-10

The surgeon general’s report on mental health noted that the needs of minority racial/ethnic groups remain largely unmet.1 Among minority persons who have received mental health treatment, premature termination has been especially problematic.1,11,12 Several factors appear to explain the observed disparities, including lack of insurance coverage, a tendency to attribute mental health problems to religious and other culturally sanctioned belief systems, and lack of access to receptive and culturally compatible providers.

Troubling patterns of participation in treatment include underrepresentation in outpatient care and, for certain groups, overrepresentation in inpatient and emergency treatment.1,13 Failure to receive outpatient care early during episodes of mental illness appears to play a role in increasing rates of hospitalization and lengths of stay.

Geographic differences and residential patterns contribute to health and mental health disparities.13 Since the seminal work of William Julius Wilson,14 researchers have paid considerable attention to understanding the impact of living in neighborhoods with high concentrations of poor people. These neighborhoods tend to have high rates of unemployment, homelessness, crime, and substance abuse.14 There is high residential turnover and little opportunity for the development of informal mechanisms of social control that some researchers have called collective efficacy.15 These factors create unfavorable social conditions that individual residents cannot control personally and that exacerbate the impact of personal vulnerabilities and problems in living.16

People with mental illness are overrepresented in high-poverty neighborhoods. Early ecological studies of the geographic distribution of people with mental illness17,18 and more recent studies of the displacement of the mentally ill19,20 indicate that people with mental illness, and members of minority racial/ethnic populations in particular, are disproportionately concentrated in high-poverty areas.

The relationship between race/ethnicity, poverty, and mental health service use is complex. Poor areas with a high proportion of minority residents generally lack the resources needed to maintain community services at a minimum level. This dearth of services decreases access to mental health treatment and exacerbates mental health problems for minority and other residents in those communities.21 Safety-net providers—public hospitals and mental health centers22—are the primary source of care in low-income and immigrant communities. Safety-net providers are too few and struggle to provide a level of care adequate to meet the needs of the most vulnerable populations.

At the same time, racial/ethnic disparities in access are less pronounced among clients of safety-net providers. Several studies suggest that these programs, which sometimes even target minority communities and specialize in treating ethnic minority populations, are especially adept at recruiting and retaining minorities.23-25 Many are financed by Medicaid—a payment source associated with negligible Black-White disparities in outpatient treatment.26

Another reason that racial disparities between minorities and Whites may be less within high-poverty neighborhoods than elsewhere is predicted by social selection theory. This theory postulates that Whites have a greater propensity to avoid living in poverty communities because they are more likely to enjoy social and economic advantages.27 Only seriously mentally ill Whites suffer from steep downward mobility and come to reside in high-poverty neighborhoods. Minorities come to high-poverty communities through immigration and other routes and accordingly are more heterogeneous. As a consequence, we would expect minority residents to have less severe mental illness than Whites and to require less hospitalization and emergency care.

Our study examined patterns of mental health service use among Whites, Blacks, Hispanics, and Asians in high- and low-poverty areas. It was conducted in New York City and represents one of the few studies of mental health service use, minority status, and poverty level conducted outside California. The purpose was to evaluate whether well-documented minority—White disparities

**Objectives.** This study examined racial/ethnic disparities in mental health service access and use at different poverty levels.

**Methods.** We compared demographic and clinical characteristics and service use patterns of Whites, Blacks, Hispanics, and Asians living in low-poverty and high-poverty areas. Logistic regression models were used to assess service use patterns of minority racial/ethnic groups compared with Whites in different poverty areas.

**Results.** Residence in a poverty neighborhood moderates the relationship between race/ethnicity and mental health service access and use. Disparities in using emergency and inpatient services and having coercive referrals were more evident in low-poverty than in high-poverty areas.

**Conclusions.** Neighborhood poverty is a key to understanding racial/ethnic disparities in the use of mental health services. (Am J Public Health. 2003;93:792–797)
would vary with residence in communities with different poverty levels.

**METHODS**

**Data and Sample**

This study used New York State Office of Mental Health Patient Characteristic Survey (PCS) data, which was collected by local and state programs funded by the New York State Office of Mental Health. The PCS collected demographic (e.g., race/ethnicity, gender, age), clinical (primary diagnosis), and service use information (insurance status, prior services, type of service received, and referral source) on each client visit over a 7-day period during the autumn of 1995. The survey included information on diagnoses made by board-certified psychiatrists and recorded in the clients’ medical charts. This analysis required an unduplicated count of clients; therefore, only the first visit for each client during the study week was included.

Data from the 1990 US Census of Population and Housing (Summary Tape File 3B Zip Code data) were used to append to each individual record an indicator of the poverty level of the client’s residential neighborhood. Because the PCS included the zip code of residence for each client, it was possible to match PCS data with census data, and from census data to determine the proportion of residents living in poverty. For clients who were in residential facilities, the zip code before such treatment was used.

Zip codes are not ideal as a unit of analysis in small-area studies because population sizes tend to be large in urban areas. PCS data for preferable units, such as census tracts or census blocks, were not available. Despite its limitations, the zip code has been widely used with different poverty levels.

**Statistical Analysis**

Bivariate analyses of association and logistic regression analyses were performed with SAS (version 6.1; SAS Institute Inc, Cary, NC). Bivariate analyses were conducted to determine the association between the demographic, diagnostic, and service use variables and race/ethnicity in low- and high-poverty areas. Because the variables were nominal, we used the Mantel–Haenszel statistic to measure general association. However, the Mantel–Haenszel statistic approximated the $\chi^2$ statistic in all tables because of the large number of cases in the study. A large sample size such as the one in this study is likely to yield statistically significant results even when the differences are small. Therefore, caution must be used in interpreting the significance of the findings.

Logistic regression analyses were conducted to assess the mental health service use patterns for Blacks, Hispanics, and Asians compared with Whites in low- and high-poverty areas. We were primarily interested in the differences in demographic, clinical, and service use characteristics for minority groups versus Whites. In each regression analysis, we present odds ratios and 95% confidence intervals.

**RESULTS**

Table 1 shows the distribution of race/ethnicity in each of the 2 designated poverty areas—those in which less than 20% of the households in the zip code were below the poverty level, defined as low-poverty areas (LPAs), and those in which 20% or more households in the zip code were below the poverty level, defined as high-poverty areas (HPAs). Among New York City residents who used the public mental health system, there were racial/ethnic differences with respect to representation in HPAs and LPAs. Blacks and Hispanics were overrepresented and Whites and Asians underrepresented in LPAs. Blacks comprised 16% and Hispanics 8% of the population, but they made up 25% and 16% of the user population, respectively. In HPAs, only Hispanics were found to be overrepresented, making up the largest racial/ethnic group of the service users. Minority racial/ethnic mental health service users were more likely than White users to live in HPAs. Twenty-seven percent of Asian, 49% of Black, and 61% of Hispanic clients lived in HPAs, compared with 15% of their White counterparts.

**Bivariate Analysis**

Table 2 shows that the age distribution of those using mental health services in New York City is significantly different for Blacks and Hispanics relative to Whites in both HPAs and LPAs. The most striking finding is that about 25% of the Blacks and Hispanics who used the mental health system were younger than 18 years, compared with only about 10% of Whites and Asians. This finding of a 25%-10% ratio held true regardless of the neighborhood poverty level. Although this ratio also could be attributed to the population characteristics, our finding replicates...
findings from Los Angeles\textsuperscript{30} and San Diego\textsuperscript{31} counties, where researchers also encountered African American overrepresentation in the public mental health system.

An examination of diagnoses in each poverty area revealed that Blacks who resided in LPAs were significantly more likely than White LPA residents to be diagnosed with schizophrenia (39.9\% vs 29.0\%, respectively). Interestingly, this result, which has been widely reported,\textsuperscript{32} was not found in HPAs. There, proportions of Blacks and Whites diagnosed with schizophrenia were virtually identical. Overall, as in some California studies,\textsuperscript{33} Asian clients were much more likely than Whites, Blacks, or Hispanics to be diagnosed with schizophrenia, regardless of the poverty area.

In LPAs, Black, Hispanic, and Asian clients were more likely than Whites to use emergency and inpatient psychiatric services. In HPAs, Hispanics were much less likely, compared with other racial/ethnic groups, to use community support programs. Analysis of the association between referral source and race/ethnicity by poverty area revealed that in LPAs, Blacks were less likely than Whites to be referred to mental health services by themselves, family, or friends and more likely than Whites to be referred by social service agencies and the criminal justice system. Hispanics were also more likely than Whites to be referred to mental health services through the criminal justice system. These findings did not hold in HPAs with the exception of social service referrals, rates of which were higher for Blacks than for all other racial/ethnic groups.

Table 3 shows utilization patterns for Blacks, Hispanics, and Asians compared with Whites after control for demographic, diagnostic, and service use variables. We examined these relationships within HPAs and LPAs to determine whether these patterns are the same in neighborhoods that are characterized by different levels of poverty.

**Blacks versus Whites**

The Black versus White logistic regression model indicated that in both HPAs and LPAs, Black children younger than 18 years were significantly more likely to use mental health services than Blacks 45 years or older. Across all age categories, Blacks utilized mental health services at younger ages than did Whites. The odds ratios were higher in the HPAs than in the LPAs, with Black compared with White children about 9 times (odds ratio [OR]=8.88; 95\% confidence interval [CI]=7.64, 10.32) more likely than White children to use services.

The odds of being diagnosed with schizophrenia were significantly higher among Blacks than among Whites but was elevated in the LPAs compared with the HPAs (OR=1.85 and OR=1.36, respectively). The odds of using emergency psychiatric services were significantly higher among Blacks compared with Whites in both HPAs (OR=1.60; 95\% CI=1.18, 2.17) and LPAs (OR=1.69; 95\% CI=1.47, 1.97). Blacks used significantly more inpatient services than did Whites in LPAs but not in HPAs.

Blacks were significantly more likely to be referred to mental health services through social service agencies in both LPAs (OR=1.45; 95\% CI=1.34, 1.56) and HPAs (OR=1.18; 95\% CI=1.05, 1.32). Likelihood of referral to mental health services by the criminal justice system was significantly higher for Blacks than for Whites, particularly so in LPAs, where Blacks were 4 times more likely than

| TABLE 2—Demographic and Clinical Characteristics of Public Mental Health Service Users (n=78,085) by Poverty Area and Race/Ethnicity: New York City, 1995 |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| <20\% Poverty (LPA), % | ≥20\% Poverty Area (HPA), % |
| Gender | | | | |
| White | Black | Hispanic | Asian | White | Black | Hispanic | Asian |
| Male | 44.3 | 53.8 | 48.8 | 50.4 | 47.4 | 50.7 | 41.4 | 46.4 |
| Female | 55.7 | 46.4 | 51.2 | 49.6 | 52.6 | 49.3 | 58.6 | 53.6 |
| Age, y | | | | | | | | |
| <18 | 9.7 | 23.3 | 25.7 | 10.2 | 7.2 | 25.8 | 27.0 | 13.6 |
| 18-20 | 1.5 | 2.8 | 3.3 | 4.2 | 0.7 | 1.5 | 1.7 | 4.0 |
| 21-34 | 19.3 | 24.6 | 23.4 | 32.8 | 15.3 | 21.2 | 16.9 | 28.1 |
| 35-44 | 23.3 | 25.0 | 20.4 | 25.6 | 21.5 | 24.1 | 20.6 | 24.7 |
| ≥45 | 46.3 | 24.2 | 27.2 | 27.2 | 55.3 | 27.3 | 33.8 | 29.6 |
| DSM-IV diagnosis | | | | | | | | |
| Schizophrenia | 29.0 | 39.9 | 22.0 | 46.6 | 35.3 | 35.5 | 17.6 | 43.8 |
| Affective disorder | 38.6 | 22.9 | 34.6 | 25.8 | 34.9 | 25.3 | 40.1 | 28.6 |
| Nonpsychotic MI | 28.4 | 30.3 | 37.8 | 19.9 | 25.3 | 32.8 | 37.5 | 21.9 |
| Organic brain syndrome | 4.0 | 6.8 | 5.6 | 7.6 | 4.5 | 6.4 | 4.9 | 5.7 |
| and other psychoses | | | | | | | | |
| Medicaid enrolled | 61.7 | 76.6 | 74.3 | 61.5 | 74.6 | 84.7 | 87.2 | 67.5 |
| Prior MH services | 74.5 | 74.4 | 65.3 | 72.3 | 75.0 | 70.0 | 59.8 | 68.1 |
| Program type | | | | | | | | |
| Emergency | 2.9 | 4.5 | 4.0 | 4.1 | 2.5 | 3.6 | 3.3 | 4.6 |
| Inpatient | 5.7 | 8.1 | 7.4 | 7.5 | 3.8 | 3.5 | 2.1 | 3.7 |
| Outpatient | 75.3 | 59.9 | 72.6 | 72.8 | 74.5 | 72.7 | 84.7 | 78.7 |
| Community support | 16.1 | 27.4 | 15.9 | 15.5 | 19.2 | 20.2 | 19.9 | 13.1 |
| Referral service | | | | | | | | |
| Self/family/friends | 39.7 | 22.9 | 34.2 | 32.4 | 34.5 | 25.7 | 39.6 | 34.4 |
| Health/MH facility | 32.8 | 33.5 | 29.6 | 41.2 | 35.3 | 34.0 | 30.9 | 36.4 |
| Social services | 11.8 | 21.4 | 14.5 | 10.3 | 16.1 | 22.5 | 13.2 | 10.5 |
| Criminal justice | 2.6 | 9.6 | 9.8 | 3.6 | 1.1 | 2.2 | 1.4 | 0.6 |
| Other | 13.1 | 12.6 | 11.8 | 12.5 | 13.0 | 15.8 | 14.8 | 18.2 |

Note. DSM-IV=Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition; HPA=high-poverty area; LPA=low-poverty area; MH=mental health; MI=mental illness; χ² P<.0001 for all associations between race and characteristics.
Whites to be referred by the criminal justice system (OR=4.13; 95% CI=3.61, 4.72).

**Hispanics versus Whites**

Hispanics showed mental health utilization patterns by age similar to those of Blacks. In both HPAs and LPAs, Hispanic children were significantly more likely than White children to use mental health services. The odds ratio for children younger than 18 years was higher in the HPAs compared with the LPAs (OR=6.13 and OR=4.27, respectively). The odds ratios for the age categories indicated a pattern of Hispanic use at much younger ages compared with White use.

Compared with Whites, Hispanics had a significantly lower likelihood of being diagnosed with schizophrenia (vs other diagnoses). Hispanics were only half as likely as Whites to be diagnosed with schizophrenia in HPAs. Insurance coverage information showed that Hispanics were much more likely than Whites to be enrolled in Medicaid in both HPAs and LPAs (OR=3.15 and OR=2.60, respectively). In LPAs, Hispanics were more likely than Whites to use emergency services. In HPAs, this relationship was not significant. Conversely, in HPAs the odds of using inpatient services was 0.66 (95% CI=0.52, 0.85) for Hispanics compared with Whites, indicating that Hispanics' inpatient use was significantly lower than that of Whites. In LPAs, Hispanics were significantly more likely than Whites to be referred to mental health services by the criminal justice system (OR=3.97; 95% CI=3.41, 4.62). This pattern was also observed among Blacks compared with Whites in LPAs.

**Asians versus Whites**

Asians were much more likely to use the public mental health system than were Whites, and used it at younger ages. This finding was most pronounced in the HPAs; compared with all persons aged 45 years and older, the odds of use for 18- to 20-year-old Asians were 14 times greater than the odds of use for 18- to 20-year-old Whites. Asians were 3 times more likely than Whites to be diagnosed with schizophrenia. In HPAs, Asians were less likely than Whites to be enrolled in Medicaid, perhaps because of their immigrant status. In addition, Asians had odds of having used mental health services half that of Whites in both HPAs and LPAs. As with analyses for Blacks and Hispanics, Asians were more likely than Whites to use emergency mental health services half that of Whites in both HPAs and LPAs.
health services regardless of neighborhood poverty level.

DISCUSSION

The present study confirmed previous research that showed racial/ethnic disparities in mental health service use. This study furthers our understanding of how residence in a high- or low-poverty neighborhood moderates the relationship between race/ethnicity and mental health service access and use.

Overall, minority racial/ethnic groups are more likely to seek emergency services than are Whites. In HPAs, the odds of Asian use of emergency services were twice the odds of White use. The finding that Asians also were less likely to have had prior mental health service use and were more likely to be diagnosed with schizophrenia is consistent with the literature and indicates that Asians seek mental health services only as a last resort. Additionally, compared with Whites, Asians were less likely to have been referred by any of the recognized referral sources, including self-referral, family, friends, social service agencies, and the criminal justice system. Perhaps because of cultural factors of stigmatization and shame, Asian clients are largely isolated and have limited access and few contacts with the service system.

Members of all minority racial/ethnic groups were more likely than Whites to use inpatient services only in LPAs. In HPAs, Hispanics and Asians were less likely to be hospitalized than were Whites, consistent with national estimates that ignore community poverty.

Foreign-born immigrants make up a large proportion of Hispanics and Asians in the United States and are largely concentrated in urban poverty areas. Although Hispanics were more likely than Whites—and Asians were as likely as Whites—to be enrolled in Medicaid, Hispanics and Asians in HPAs were also more likely than Whites to use emergency services. This pattern suggests that for the immigrant populations, having insurance coverage is inadequate by itself to ensure appropriate service use. Better outreach and public education of mental health care workers are essential to improve access.

Existing theories predict more downward social mobility and greater social selection into poor communities for poorly functioning Whites, and that Whites living in HPAs are a group with more severe symptoms. This pattern is evident from the finding that a higher proportion of White service users were diagnosed with schizophrenia and enrolled in Medicaid in HPAs than in LPAs. These findings lend support to previous research indicating that the link between schizophrenia and poverty can be explained by social selection.

A significantly higher proportion of minority children or young adults than of their White counterparts used public mental health services. This was especially evident in HPAs, where Asian young adults aged 18 to 20 years were far more likely than their White peers to use mental health services. Additionally, Black and Hispanic children younger than 18 years were considerably more likely than their White peers to use mental health services. Children of minority groups living in poverty areas are particularly vulnerable to mental health problems, because of the poor living conditions and the high level of violence in their neighborhoods; they experience chronic distress symptoms and behavioral problems.

However, current knowledge of children’s mental health service access and use is limited. There is a paucity of research on the patterns of entry into mental health service systems by minority children. Minority children, perhaps especially those living in HPAs, are likely to receive treatment through involvement with the child welfare system. Further research is needed on the role of racial/ethnic factors in access to care and quality of treatment for children.

Our findings suggest that there are different paths of access to mental health services taken by minority racial/ethnic groups. Regardless of the general level of poverty, minority racial/ethnic users are less likely than White users to have been referred by themselves, family members, or friends. Other research has shown that minority racial/ethnic groups are more likely to enter the mental health service system through interpersonal contact (e.g., self, family, friends) when ethnic-specific agencies are involved than when mainstream providers are used by the system. The present study did not differentiate ethnic-specific programs from others. Further research is needed to account for this distinction.

Some racial/ethnic groups, Blacks in particular, are at high risk for involuntary commitment and are likely to be referred by law enforcement officials. Our study showed that the referral sources of minority racial/ethnic individuals with mental illness differed significantly according to their neighborhood poverty level. Blacks and Hispanics were much more likely than Whites to be referred by law enforcement officials in LPAs, whereas differences by race/ethnicity in HPAs were negligible. The lack of tolerance in LPAs, where minority representation is lower, for minority persons with mental illness lends support to the visibility hypothesis, which suggests that minorities in LPAs may stand out as more "attention worthy" than others—more visible—such that their deviant behaviors are readily recognized and constrained. This theory is consistent with other studies showing that conservative middle-class communities had the most negative reactions to community care of people with mental illness. It is apparent that such attitudes have not changed in the past 2 decades. Other factors may contribute to this disparity, such as a greater likelihood of involuntary admission into private facilities for privately insured Whites.

CONCLUSIONS

This study represents the first attempt to examine the patterns of mental health service use by racial/ethnic groups living in areas with different general levels of poverty. It shows that racial/ethnic disparities in the use of mental health services not only persist but are more salient in LPAs than in HPAs. The results indicate that in LPAs, the use of mental health services was both more coercive and less volitional. Furthermore, the use of emergency and inpatient hospitalization for mental health problems was more frequent for minority clients than for White clients. In addition, children of minority groups were also more likely than White children to use mental health services.

Our study has several important implications. First, mental health services must be tai-
llored to meet the unique needs of minority racial/ethnic groups in different community settings. Second, to minimize racial/ethnic disparities in service access and use, appropriate pathways to care must be encouraged in LPAs. Finally, priority should be given to programs that specifically target mental health services to minority and immigrant children in HPAs.

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Contributors
J.-C.-C. Chow was responsible for the conception, plan, and design of the study and was the principal writer of this article. K. Jaffe analyzed the data and contributed to the writing of the article. L. Snowden contributed to the interpretation of the data and the writing of the article.

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