Effects of Ethnicity on Psychiatric Diagnosis: A Developmental Perspective

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Compared with Caucasians, African Americans receive an excess of schizophrenia-spectrum diagnoses. Potential explanations for the ethnic differences in clinical assignment of psychiatric diagnoses are reviewed.

Across a wide variety of treatment settings and developmental stages, African American patients receive excess diagnoses of schizophrenia-spectrum disorders, as compared with similar white patients (DelBello et al., 2001; Flaskan and Hu, 1992; Strakowski et al., 1996). Concurrently, African Americans receive fewer mood disorder diagnoses. Although the reasons for the ethnic differences in clinical assignment of psychiatric diagnoses remain unclear, investigators have proposed several hypotheses. One explanation is that there are actual ethnic differences in rates of psychiatric disorders. However, studies of psychiatric patients reveal that when structured diagnostic instruments are used and strict diagnostic criteria are applied, there are fewer differences in the rates of psychotic and mood disorders between ethnic groups (Cuffe et al., 1995; Mukherjee et al., 1983; Robins et al., 1984).

Factors in Misdiagnosis

Misdiagnoses may be due to several factors including ethnic differences in clinical presentation or clinician biases. For example, cultural differences in expression of psychiatric illnesses may account for ethnic differences in clinically assigned diagnoses (Adebimpe et al., 1982; Fabrega et al., 1988; Neighbors et al., 1989). African American patients may exhibit more psychotic symptoms during affective episodes than whites, possibly leading to under-recognition of affective syndromes (Adebimpe et al., 1982; Lawson et al., 1994; Mukherjee et al., 1983). Indeed, Strakowski et al. (1996) found that African American patients demonstrated higher rates of first-rank symptoms, although this did not entirely account for the ethnic differences in psychiatric diagnoses that they found. In a later study, Strakowski and colleagues (1997) reported that information variance, defined as differences in the clinical data recorded, was the cause of diagnostic disagreement between clinical and research diagnoses 58% of the time and was related to ethnicity. In this study, criterion variance, or how clinical data are applied, was present in only 42% of cases and was not related to patient ethnicity, suggesting that affective symptoms may be missed in African Americans who, more typically than whites, present with psychotic symptoms. In other words, although there might not be ethnic differences in how diagnostic criteria are applied, if an African American patient presents with mood-disorder symptoms, it is less likely to be recorded in the medical record than if a white patient presented with similar symptoms. Together, these data suggest that first-rank psychiatric symptoms in African American patients might distract clinicians, who then fail to elicit mood symptoms for these patients.

Misdiagnoses may also be due to social and cultural differences between predominantly white clinicians and African American patients. Whaley (1998) reported that mild forms of suspiciousness are more prominent in African Americans than in whites and are associated with depression, suggesting that African Americans' culturally based suspiciousness of a white-dominated mental health care system may be misinterpreted as a psychotic symptom. However, most studies investigating ethnic differences in psychiatric diagnosis have had insufficient African American psychiatrists involved in assigning diagnoses to evaluate this factor. Selection Bias

The ethnic differences in rates of psychiatric diagnoses may also be due to biases in rates of hospitalization, i.e., referral biases. However, few studies have investigated ethnic differences in access to mental health care services and assignment of disposition, for example, hospitalization versus incarceration. Cuffe and colleagues (1995) reported that African American females with psychiatric disorders are undertreated in outpatient settings. Perhaps African Americans have a more severe mood disorder, which presents with psychotic symptoms by the time they are admitted.
to an inpatient treatment facility, thus making them more likely to be diagnosed with a schizophrenia-spectrum disorder.  

Several investigators have reported fewer diagnoses of substance abuse in African American adolescents (DelBello et al., 2001; Kilgus et al., 1995). Although the reason for this remains unclear, as Kilgus and colleagues (1995) suggested, drug use may be linked with delinquent behaviors, which may lead more African American adolescents with substance-use disorders to the juvenile justice system as opposed to mental health treatment. Furthermore, Lewis et al. (1980) observed that violent, mentally ill African American adolescents were more likely than similarly violent and ill white adolescents to be incarcerated rather than hospitalized. This could alter the diagnostic distribution of patients admitted to a hospital. Additionally, African Americans may be less likely to trust a predominantly white mental health care system or may be less likely to view mood or substance-use disorders as "mental health" issues, thereby altering referral patterns for inpatient admission. In contrast, Strakowski and colleagues (1995) found that African American adults were more likely to be hospitalized from a psychiatric emergency department and less likely to have a substance-use disorder diagnosis than whites. Differences in study populations might have contributed to the variability in results among studies. **Children and Adolescents**

Most studies evaluating the impact of ethnicity on psychiatric diagnosis typically have involved adults. However, children and adolescents usually present to the hospital relatively early in the course of their illness; consequently, misdiagnoses of affective illness as a psychotic disorder can lead to long commitments of inappropriate treatments and inaccurate prognoses. A misdiagnosis of schizophrenia in an African American adolescent could also result in failure to initiate appropriate treatment for an affective illness at a critical life stage.

Consistent with studies of adults, several investigations have reported that ethnic differences in diagnostic patterns also occur in children and adolescents. Fabrega and colleagues (1993) used a semi-structured interview to assess adolescent outpatients at intake appointments at a public university-based facility and found that conduct disorder was more frequently diagnosed in African American youth, whereas eating disorders were more often diagnosed in white youth. Kilgus and colleagues (1995) retrospectively examined ethnic differences in discharge diagnoses of 352 psychiatric inpatients (ages 12 years to 18 years) accepted for treatment at a South Carolina state hospital in 1988. They reported that African American adolescents had fewer mood/anxiety and substance-abuse diagnoses but significantly more psychotic/organic diagnoses than whites. The different patient populations, methods of acquiring diagnostic data and small sample sizes, however, may account for these contrasting results.

In a more recent study, our research group examined ethnic differences in rates of discharge diagnoses of 1,001 adolescents who were hospitalized in an acute inpatient unit (DelBello et al., 2001). Consistent with the adult literature, we found ethnic differences in clinical assignment of diagnoses of hospitalized adolescents. Specifically, there were more African Americans than whites diagnosed with schizophrenia and psychotic disorders not otherwise specified, while more whites than African Americans were diagnosed with major depression. Within the group of adolescents diagnosed with a major affective or psychotic disorder, African American males were the most likely group to receive a psychotic-disorder diagnosis. Additionally, whites were more often diagnosed with alcohol-use disorders, while African Americans were more likely to receive a diagnosis of conduct disorder.

As previously discussed, there are several possible explanations for the ethnic differences found in adolescents. Ethnic differences in rates of psychiatric disorders may actually exist in adolescents. However, Cuffe and colleagues (1995), in an epidemiological study using a semi-structured diagnostic interview, found no difference in the rate of affective disorders between the two populations. Mis-diagnosis, either from ethnic differences in clinical presentation or clinician biases, might contribute to the ethnic differences in clinical assignment of psychiatric diagnosis found in adolescents. Alternatively, referral biases may account for the differences. **Prescribing Pattern Differences**

Studies examining ethnic differences in psychotropic medication prescribing patterns have demonstrated that African American children and adolescents are less likely to receive psychotropic medications than similarly diagnosed white children and adolescents. The largest difference is found for prescriptions of stimulant and antidepressant medications (Goodwin et al., 2001; Zito et al., 1998). Melfi and colleagues (2000) reported that in a Medicaid population, African American adults were less likely than whites to receive medication when they were initially diagnosed with depression. Furthermore, in this study African Americans were more likely to receive prescriptions for tricyclic antidepressants as compared to whites, who were more likely to receive selective
serotonin reuptake inhibitors. Some of the factors that may affect prescribing patterns are cultural differences in symptom expression, which might result in lower rates of illness detection for African Americans, cultural bias in diagnosis or lower rates of mental health service use among African Americans (Goodwin et al., 2001). In contrast, in a sample of hospitalized adolescents with bipolar disorder, African Americans were more likely than whites to receive antipsychotic medications, even though they had similar rates of psychosis (DelBello et al., 2000). Although confounding factors such as socioeconomic status might have contributed to these results, these data suggest the need for further investigation. While such studies are also important for adults, children and adolescents are at a particularly vulnerable developmental period. For example, if similar rates of attention-deficit/hyperactivity disorder among whites and African Americans are found, yet stimulant medications are being under-prescribed for African Americans, this may result in increased rates of academic difficulties and school failure among African American children.

**Future Directions**

Epidemiological studies, particularly those involving child and adolescent patients, are essential to assess whether there are actual ethnic differences in the rates of psychotic and mood disorders. However, if results of these investigations are similar to previous investigations, future efforts should be directed at teasing apart which of the potential explanations contributes to the ethnic disparity in clinical assignment of psychiatric diagnosis, as well as pharmacological treatment.

**References:**


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