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TYPE:	Article CC:CCG
JOURNAL TITLE:	Journal of child and adolescent psychopharmacology
USER JOURNAL TITLE:	Journal of child and adolescent psychopharmacology
ARTICLE TITLE:	Stewart,Sunita "Treatment of Culturally Diverse Children and Adolescents with Depression"
ARTICLE AUTHOR:	
VOLUME:	22
ISSUE:	1
MONTH:	
YEAR:	2012
PAGES:	72-9
ISSN:	1044-5463
OCLC #:	

Processed by RapidX: 5/6/2016 9:33:07 AM

JOURNAL OF CHILD AND ADOLESCENT PSYCHOPHARMACOLOGY
Volume 22, Number 1, 2012

Pp. 72–79
DOI: 10.1089/cap.2011.0051

Treatment of Culturally Diverse Children and Adolescents with Depression

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Abstract

This article is written for the practitioners treating depression in ethnic minority youth. It will review the context in which services are delivered to these youth: Researchers have recognized persistent ethnic differences in terms of utilization of services and unmet need. Furthermore, when ethnic minority youth do receive pediatric mental health care, the services that they receive may differ from those given to White patients. The reasons for these discrepancies have been examined in numerous studies, and have included *contextual* variables (economics, availability, and accessibility of services), *patient* variables (differences in prevalence or manifestation of the disorder, cultural beliefs and attitudes, preferential use of alternative or informal services, health literacy, and adherence), and *provider* variables (referral bias and patient-provider communication). Information about the differences between White and minority youth in the pharmacodynamics and pharmacokinetics of the antidepressant response is still limited. There are significant challenges for developing evidence-based guidelines that inform practice with these youth, hinging on both the underrepresentation of ethnic minority groups in clinical trials, and the great variability in biological and cultural characteristics of individuals in ethnic minority categories. Awareness on the part of the practitioner of the cultural variables that influence help-seeking and ongoing utilization of mental health services may aid in the engagement, effective treatment, and retention of ethnic minority children and adolescents with depression. However, given the great heterogeneity that exists within any cultural grouping, clinicians will need to integrate information about cultural patterns with that obtained from the individual patient and family to inform optimal practices for each patient.

This article is written to enhance awareness on the part of the practitioner as to the variables that influence psychiatric care for depression in culturally diverse youth. The mental health needs of minority youth are not well served: They are treated less frequently, and when they are treated, the services they receive are less frequently adequate. The reasons that have been proposed for the disparities in their care, particularly with regard to diagnosis and treatment for depression, will be reviewed. They include contextual factors (such as economics, insurance, and other variables affecting the availability of services) patient and family factors (such as prevalence, symptom presentation, and values and beliefs that influence whether patients are referred to and avail themselves of services), and provider factors (such as referral bias and patient-provider communication, which affect whether patients engage and stay in treatment). The implications for the practitioner treating ethnic minority youth with depression will be discussed.

Culture, as used in this article, refers to the common values, beliefs, and social behaviors of individuals with a shared heritage. Some aspects of culture that are likely to influence service utilization include health beliefs, particularly regarding models of mental illness, and level of stigma toward mental health treatment, which are frequently shared by individuals in a cultural group. However, some caveats for the explanatory potential of ''culture'' should be kept in mind. Conventions for naming groups vary between investigators and over time (e.g., the restriction of the category ''White'' into ''White Non-Hispanic,'' is quite recent). Although heterogeneity is assumed within a named cultural or racial group, the terms Hispanic, Asian, and African-American incorporate subgroups can be very different in linguistic, historical, and geographical ancestry (e.g., Stewart 2008), and each group incorporates individuals who may not share any components of their historical heritage. Even among those with historical ties, values, beliefs, and social behaviors can vary according to the extent to which they identify with the mainstream culture. Social class frequently creates a ''culture'' of its own, with individuals in the same social class across traditional cultural groupings sharing disparities in care, and many beliefs and values. Individuals are likely to belong to numerous ''cultures,'' and may not share specific typical behaviors or beliefs with any of them.

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Culture and Treatment

Disparities have been clearly documented in adults for treatment rates for psychiatric disorders in ethnic minorities compared with the White population (Institute of Medicine 2002; Simpson et al. 2007). The literature in youth has focused on both utilization of mental health services and unmet need. Elster et al. (2003) reviewed the literature and concluded that there is evidence for disparities in use of mental health services for ethnic minority youth, with more consistent evidence for lower use by African-American youth, and less consistent evidence for Hispanic youth. Several studies not included in Elster et al.'s review also came to a similar conclusion (Costello and Janiszewski 1990; however, cf. Burns et al. 1995; Cuffe et al. 1995; Zahner and Daskalakis 1997; Kataoka et al. 2002; Garland et al. 2005). Cuffe et al. (1995) found that for all groups of disorders diagnosed by the investigators (including affective disorders), outpatient treatment was significantly more likely for NonHispanic White youth. African-American girls received treatment at about a third and African-American boys at half the rate of NonHispanic White boys. Similar findings were reported for high-risk Asian-American youth (Garland et al. 2005). White youth were more likely than African-American youth to receive more than two sessions of treatment, suggesting differences in adequacy and retention (Cuffe et al. 1995). In a multi-ethnic group of high-risk youth in public care systems, Latino youth's first visits occurred at an older age, and they received about half as many visits as did White youth (Hough et al. 2002). It is notable that Garland et al. (2005) reported no differences for informal or 24-hour care services in a sample of high-risk youth in several systems of public care.

Though the bulk of the evidence suggests disparities in treatment based on ethnicity and race, two studies did not find such disparities. Costello and Janiszewski (1990) examined youth aged seven through 11 years recruited from psychiatric versus general practices in a large, urban, northeastern area. They determined the characteristics of those who were seen for treatment versus those with similar levels of disturbance (as assessed by completion of the Child Behavior Checklist by parents) who were not treated. Those treated were disproportionately African-American, poor, and male, and had diagnoses of conduct or depressive (versus anxiety, oppositional or attention deficit) disorders. A second study conducted by Burns and colleagues (1995) did not find differences among White and African American youth for service need or use in the Great Smoky Mountain Study of Youth. The literature from adult patients provides additional insights. Young et al. (2001) conducted a national phone survey of adults who had been diagnosed with depressive or anxiety disorders. Although African-American participants were as likely as White participants to see a provider, they were less likely to receive appropriate treatment (defined as medication or counseling consistent with treatment guidelines). Data from the medical expenditure panel survey (MEPS) from 1996–2000 (Han and Liu 2005), and from 1996–2003 (Chen and Rizzo 2008), revealed that African Americans, Hispanic, and Asian-Indian adults use psychotropic medication less than NonHispanic Whites. Chen and Rizzo (2008) examined the MEPS database specifically for antidepressants and reported that African-Americans also were more likely to purchase generics and use older antidepressants drugs (tricyclics and monoamine oxidase inhibitors). Data from the National Ambulatory Medical Care Survey were examined by Sclar et al. (2008) from 1992–1997 and 2003–2004, recording office-based visits with a documented diagnosis of depression, and the use of antidepressant medication for its treatment. Increases in diagnosis as well as treatment for those diagnosed were observed for all ethnic groups over the two time periods, but rates for African-Americans and Hispanics adults remained at about half that of NonHispanic Whites.

There are similar findings in studies of adolescents with regard to medication use. African-American and Latino youths have been found to have a reduced likelihood of using psychotropic medications compared with NonHispanic White youth (Zito et al. 1998; Leslie et al. 2003). Wu et al. (2001) reported that depressed African-American adolescents were about half as likely compared with their White counterparts to receive antidepressant treatment.

In summary, the bulk of the evidence suggests disproportionate outpatient mental health services and higher unmet need for ethnic minority youth, particularly in high-risk groups. Treatment is less often adequate, and for both adults and youth, antidepressants are prescribed less frequently than to NonHispanic White individuals.

Reasons for Disparities

The variables described here are summarized in Table 1.

Contextual Variables

It is known that *economics* drives a significant portion of variability in seeking and receiving treatment for both White and ethnic minority members of the population. Insurance coverage significantly influences utilization of mental health services for adults and children (Padgett et al. 1993; Wu et al. 2001). Socioeconomic variables and family structure have a strong influence on service use for ethnic groups (Pumariega et al. 1998). However, some studies have found that discrepancies persist even after control for health insurance and education (e.g., Wu et al. 2001; Han and Liu 2005).

Knudsen et al. (2007) found that availability of selective serotonin reuptake inhibitor (SSRIs) in substance abuse treatment centers was inversely associated with the percentage of African-American and Hispanic clients in the centers' caseloads. When the presence of a physician among staff and the availability of an integrated approach to dual diagnosis were controlled, the relationship weakened. These services, therefore, are *less readily available* to minority patients.

Table 1. Factors Contributing to Disparities in Treatment of Depression in Ethnic Minority Youth

Contextual Variables:
Economic (Income, Insurance)
Availability of services in areas where minority populations are concentrated
Lack of services for nonEnglish-speaking populations
Patient Variables:
Prevalence rates
Culture-specific presentations that result in underdiagnosis
Parental tolerance of symptoms
Cultural beliefs about causes of depression
Outcome expectancies regarding conventional treatment
Adherence
Health literacy
Differential treatment response
Likelihood of adverse effects
Provider variables:
Referral bias
Communication skills

An ethnic match between provider and patient has not been found to be a significant predictor (Maramba and Hall 2002); however, *lack of linguistically appropriate resources* is more likely to be. Weinick and Krauss (2000) found that African-American and Latino children were less likely than White children to have a usual source of health care, a difference that persisted after controlling for health insurance and socioeconomic status, but weakened for Latinos when parental ability to communicate in English was controlled. However, even with linguistically appropriate resources, some barriers remain. Diaz et al. (2005) found that in a community mental health clinic staffed with bilingual providers, monolingual Hispanic patients had lower adherence rates than White patients after controlling for a variety of confounding factors.

Patient Variables

Differences in prevalence of depression and other psychiatric disorders may underlie the observed underutilization of services noted in minority groups. Information about the international, cross-cultural prevalence of childhood psychiatric disorders may provide an insight as to whether different ethnic groups have different rates of depression. However, reports of prevalence vary, as the research is characterized by a range of discrepant methodologies. Studies are often heterogeneous in terms of method of diagnostic assessment, informants for the assessment, and diagnostic nosology (Vitiello 2008). Taking studies of attention deficit hyperactivity disorder (ADHD) as an example, Faraone et al. (2003) found that internationally, rates varied from 1% to 20%. However, in a meta-analysis of more than 100 studies, Polanczyk et al. (2007) found that geographic location played only a limited role in explaining the large variability in ADHD diagnosis rates, whereas methodological characteristics of the studies accounted for much more of the variability; the actual prevalence of ADHD appeared to be roughly 5%.

With regard to minority groups within the United States, rates of childhood and adolescent depression may be equally difficult to evaluate for similar reasons. Lower socioeconomic status has been linked with adolescent depression (McLeod and Shanahan 1996), and some ethnic minority groups are over-represented among the poor. Roberts et al. (1997) reported that in a group of ethnically diverse adolescent students, rates of major depression varied from 6.6% for Mexican American subjects to 1.9% for Chinese American subjects. However, in a different school-based study, Cuffe et al. (1995) found that affective disorders, both as a sole diagnosis as well as comorbid with nonaffective disorders, were present at similar rates in African Americans and NonHispanic White youth. Although much research has focused on explaining differences in the prevalence of psychopathology in minority groups, it seems likely that similar to the international findings, methodological issues may be responsible for some of the variations in findings.

Culture influences expressions of distress, and *differences in symptom presentation* may result in underdiagnosis and treatment (Stewart 2008). Most screening and tracking measures of psychopathology have been developed and normed on middle-class White samples, and may misclassify members of minority groups. Chronic trauma exposure common in some inner-city settings where ethnic minority youth reside may result in presentations that may not be readily recognized as depression. Baker (2001) has proposed that depression may be underdiagnosed in African-American adolescents, because depression is more frequently communicated as irritability or anger rather than hopelessness or sadness. Chentsova-Dutton and colleagues (Chentsova-Dutton et al. 2007; Chentsova-Dutton et al. 2010) have shown that positive and negative emotional reactivity is dampened in Whites but heightened in East-Asian depressed patients. There is an increasing awareness that emphasis on ''psychological'' symptoms at expense of somatic symptoms may reflect a Western cultural bias as somatic symptoms appear to be more common in most cultural groups (Kirmayer et al. 1993). Given that poverty is associated with a greater risk for psychiatric disorder, that ethnic minorities are overrepresented in lower social classes, and that ''psychologization'' of symptoms is more common in those with less education, there may be inadequate appreciation of the extent of distress in ethnic minority youth or misdiagnosis because of a poor fit in the diagnostic system.

There have been a few studies comparing symptom profiles in clinical samples of ethnic minority compared with White youth. Fabrega et al. (1993) examined consecutive intakes in an outpatient clinic over a 7-year period, hypothesizing higher levels of symptoms in minority youth given the tendency to delay treatment. They reported that no differences were found in rates of major depression single or recurrent (or several other disorders). However, White youth showed higher levels of pathology (including higher levels of somatic symptoms) generally, except for social aggression where African-American youth showed significantly higher levels of symptoms. The authors discussed possible interpretations of this unexpected finding including that the predominantly White interviewers were better able to elicit and measure symptoms expressed by White adolescents. Another possibility was that referral sources were particularly uncomfortable with social aggression displayed by African-American youth, and so were quick to refer when such symptoms were apparent.

Stein et al. (2010) reported ethnic differences in depressive symptoms presentation in youth enrolled in the Treatment for Adolescents with Depression Study. Contrary to hypotheses, African-American and Hispanic adolescents did not exhibit more somatic symptoms than did White youth. The only finding of ethnic group differences was that interviewers rated minority youth as showing more severe behavioral symptoms of depression as observed on interview. The authors proposed the possibility that the predominantly White interviewers may have more difficulty interpreting the cultural cues of minority adolescents, but also acknowledged the confounded possibility of more severe symptoms in the ethnic minority youth who participated in this study.

Investigations of the significance of cognitive symptoms in depression in different ethnic groups have yielded mixed results. Kennard et al. (2006) reported similar levels of cognitive symptoms in different cultures in community youth. However, the association between cognitions and depressive symptoms were stronger for White than for ethnic minority youth. In contrast, Stein et al. (2010) reported that cognitive variables related at equivalent levels to self-reported and interviewer-reported depressive symptoms in clinical samples of youth, suggesting that similar processes were in effect across the ethnic groups.

The Centers for Disease Control and Prevention (2009) reports rates of suicide, a symptom of depressive disorders. Completed suicide in 2006 occurred at a level 2.4 times higher in Native Americans than in White youth aged 15–19. Asian-American girls had a rate that was 1.2 times that of White girls. However, for Asian-American boys, and African-American and Hispanic youth, the rates were lower (0.6, 0.5, and 0.7, respectively of the rates for White youth). Suicide attempts in grades 9–12 in 2007 occurred at equivalent rates for African American and White girls. However, African-American boys and Hispanic boys and girls had rates that

were 1.6, 1.9, and 1.8 times, respectively, that of their White counterparts. Higher rates in some minority groups of both attempts and completed suicide may reflect untreated depressive disorder. Underreporting of internalizing symptoms by African-American adolescent boys (Baker 2001) may further confound accurate diagnosis and treatment.

Cultural beliefs and attitudes about disease and treatment are likely to influence help-seeking and also influence engagement with treatment. Young et al. (2001) found that in a community sample of individuals with a probable depressive or anxiety disorder, African-American participants were less likely to receive adequate care, but also that fewer of those who did not receive adequate care endorsed the belief that they needed mental health treatment for an emotional problem. Ho et al. (2007) found that parental acculturation, specifically the extent of the parents' affinity to his or her culture of origin, partly mediated the disparities that were found in mental health service use for Hispanic and Asian-American youth. Thus, parental acculturation may reduce disparities for youth of immigrant parents.

Yeh et al. (2004) examined parental beliefs in relation to different etiologies about their child's problems in an at-risk population. Parents of ethnic minority youth were generally less likely to endorse beliefs that were consistent with a biopsychosocial model of mental illness than were parents of White youth. Consistent with other findings (Vontress 2007), African-American and Asian-American parents were more likely to endorse sociological causes (e.g., racial prejudice, peer influence) than White parents. These attributions contraindicate the kind of help provided in traditional mental health settings. In a follow-up set of analyses of the same data set, Yeh et al. (2005) reported that two of the biopsychosocial etiological beliefs (health problems and trauma) were positively associated with service use, and the sociological attribution of problems to negative influence of peers was negatively associated with mental health service use. Furthermore, the relationship between ethnic minority status and service use was mediated by these beliefs, demonstrating their role in influencing service utilization.

Cooper et al. (2003) found that among adult patients who met criteria for major depressive disorder in the past year, African-American and Hispanic patients were less likely to indicate that antidepressants were acceptable. They were also more likely to endorse statements such as ''antidepressant medications are addictive,'' and less likely to agree with ''antidepressant medications are effective.'' African-American patients were also more likely to report their belief that counseling arouses ''too many bad feelings like anger and sadness'' and that ''prayer can heal depression.''

Chandra et al. (2009) reported that Hispanic and African-American teens in primary care settings had lower scores on antidepressant and counseling knowledge than NonHispanic White teens. Fewer Hispanic and African-American parents preferred active treatment (antidepressants, counseling, or combination) than did White parents, instead preferring ''watchful waiting'' and counseling. Knowledge was associated with preference for active treatment by the teenagers for all groups.

Thus, beliefs about causes of illness and coping styles (prayer, stoicism), as well as avoidance of stigma, and mistrust of professionals (Boyd-Franklin 2003) may serve as common sociocultural bases for avoidance of treatment. Care-giver strain has been found to be lower in African-American compared with White parents, and tolerance for symptoms (Costello and Janiszewski 1990) has been negatively associated with help-seeking. In families struggling with poverty, more urgent priorities might prevail; internalizing symptoms, in particular, may not compete for attention with other parental responsibilities. Shame and stigma have also been associated with lower utilization of services by some ethnic minority groups (U.S. Department of Health and Human Services 2001; Freedenthan and Stiffman 2007).

Alternative medicine as a preferred path to health. Although it has been speculated that members of ethnic minority groups are more likely to use alternative medicine, the data suggest that complementary practices (such as vitamins, yoga, and chiropractic care) are common among the White population as well. Aside from prayers for health conditions, more commonly used by Hispanics, there is little evidence that replacement of mainstream medicine with alternative medicine accounts for lower mental health service utilization among ethnic minority individuals (Snowden and Yamada 2005). Garland et al. (2005) did report higher use of ''informal services'' (including self-help and peer counseling groups, counseling from clergy and alternative healers) among Hispanic compared with White youth; however, when other variables were controlled, the difference in rates did not account for lower rates of use of professional services by ethnic minority youth.

Differences in adherence. In elderly adults, Bogner et al. (2006) found that even after controlling for education, ethnic minority status predicted adherence as measured by pill counts, such that Whites were more likely to be adherent to taking their antidepressant. After controlling for a host of confounding variables, Diaz et al. (2005) found that monolingual Hispanic and African-American patients had lower medication adherence rates than did NonHispanic Whites. However, at least one study (Melfi et al. 1998) shows that adult African-American Medicaid recipients were at *reduced* risk of relapse or recurrence of their depression because of premature discontinuation of their antidepressant medication. No studies of adherence were located in youth.

Lower health literacy may influence not only treatment preferences, but also adherence. Using studies with ADHD as example, despite evidence for greater unmet need, African-American parents of at-risk children had lower scores on knowledge items, and less scientifically accurate information about the disorder than their White counterparts (Bussing et al. 1998).

Ethnopsychopharmacology. A number of investigators have pointed to the importance of examining cultural variability in efficacy and side effects of psychotropic medications (Balant and Balant-Gorgia 2000; Lin 2001; Chen 2006). However, many have also noted the challenges in doing so. On the one hand, there is enthusiasm that research in this area may unravel some of the reasons for the disparities, for example, that a high propensity for side effects might explain underutilization of treatment or nonadherence in some ethnic groups. On the other hand, there is also caution expressed that race and ethnicity are not measurable and consistent variables, and that an overly biologically deterministic perspective may undercut research into variability that is better captured by cultural variables (Braun 2002; Doyle 2006).

Individual response to psychopharmacologic treatment of depression can be quite varied. Differences between individuals have been attributed to variation in a number of ''intrinsic'' factors such as genetics, physiology, and pathology, as well as ''extrinsic'' factors such as culture, diet, and environment (International Conference on Harmonization Steering Committee 1998). These differences make the current practices of pooling data from several different ethnic groups problematic (Chen 2006). However, there

are significant hurdles to understanding the interaction between ethnicity and response.

An important barrier to reaching this understanding is that research on efficacy and side effects with sizable numbers of ethnic minority participants is still quite limited (Evelyn et al. 2001). Cross-study comparisons from different countries that bypass the difficulty of recruitment of large numbers of ethnic minorities have the significant disadvantage of poor control over a number of intrinsic and extrinsic factors that might not be common in the groups. Another significant concern is that race and ethnicity are not in fact biological or genetic variables (Doyle 2006), and there is frequently as much heterogeneity within a single ethnic or racial group as there is between such groups. Furthermore, ethnic and racial categories are not consistently defined across studies (Hunt and Megyesi 2008). Thus, understanding pharmacodynamics of diverse groups may ultimately require strides in individualized approaches with some generalizability possible within groups that are homogeneous on the factors that contribute to individual variability.

A review of the literature in pharmacotherapy of pediatric depression discovered no randomized controlled trials investigating ethnic differences. However, even in the adult population, there have been a few hallmark randomized clinical trials that emphasized the importance of ethnicity in psychopharmacologic treatment of depression. Varner et al. (1998) found that African-American patients needed lower doses of tricyclic antidepressants (TCAs) than White patients to attain a similar treatment response to major depression. They also suggested that African-American patients might need lower doses of SSRIs to achieve similar levels of response as White patients. Lower therapeutic doses of tricyclics and lithium have been noted in Asian populations as well (Okuma 1981).

There is a growing body of research concerning the pharmacokinetics of various drugs including antidepressants, primarily in adults. These kinds of studies could reveal information regarding differences among ethnic groups, relevant to optimal dosing strategies. For example, a number of studies have compared clearance rates and peak plasma concentrations for Asian versus White subjects, with mixed findings (Kishimoto and Hollister 1984; Rudorfer et al. 1984; Rudorfer et al. 1985). Even less is known about pharmacokinetic response in other minority groups (Sramek and Pi 1996). However, as noted in a recent review of the literature (Findling et al. 2006), even the existing information is being underutilized. Most randomized, placebo-controlled trials to date do not utilize the dosing strategies suggested by pharmacokinetic data. Furthermore, the difference between dosing regimens and pharmacokinetic information may be responsible for failed trials as well as high adverse effects reported in some trials.

The pharmacogenomics of antidepressant drugs have been studied in the context of ethnic/racial differences, but the findings have been controversial. Ethnic and racial differences have been noted in serotonin transporter polymorphisms that underlie the variation of response of depressed patients to SSRIs. A long variant (L-allele) of the *5-HTTLPR* gene (5 HT transporter gene-linked polymorphic region) is associated with better treatment outcome in depressed Whites, while in depressed Asians, short variant (S-allele) has been associated with a better response (Binder and Holsboer 2006). Genetic patterns may be more commonly shared in subgroups of individuals within the same ethnic or racial group. Diversities in cytochrome P450 enzyme system and different metabolism rates have been shown in the adult patient population in different studies (Woolhouse et al. 1979, Arias and Jorge 1990; Masimirembwa et al. 1993; Bertilsson 1995). Differences in cytochromes and their role in metabolizing antidepressants in children are other areas of interest with a paucity of data in this population. Although testing cytochrome profiles of patients with treatment resistant psychiatric disorders has been conducted in a limited number of patients, the cost of genetic testing is a major barrier in preventing use of these tests for routine clinical care. In a study with Chinese youth, Yang et al. (2004) found an association between norepinephrine transporter gene *G1287A* polymorphism and methylphenidate response. The authors suggested the need for further research in other ethnicities for further generalization (Yang et al. 2004).

A recent review of adverse responses to psychotropic medications found insufficient data from studies of antidepressant medications in adults to conduct analyses of ethnic differences (Ormerod et al. 2008). However, there was ethnic variability in the risk of adverse events to antipsychotic medications, with the side effects showing different risk ratios in different groups compared with White patients. As our understanding of the genetic basis of psychiatric disorders is evolving, understanding the role of ethnicity in psychopathology and response to psychotropic interventions remains a question. There is some controversy regarding the extent of ethnicity's role in individualized treatments and the realm of personalized medicine. This debate needs to be readdressed periodically, as medicine advances and technology enable us to practice full-spectrum personalized medicine. However, at present, although there is some confidence that ethnicity plays an important role in psychopharmacology, the nature of the impact is unclear, and evidence-based guidelines, therefore, have not been developed to enhance treatment. In the presence of racial and ethnic disparities in mental health access and a lack of evidence-based guidelines for ethnic minorities, it is fair to say that we have a long road ahead to an ideal personalized medicine.

Provider Variables

Referral Bias. It has been suggested that African-American men may be more likely to be referred to the juvenile justice system than to mental health facilities (Cohen et al. 1990; Mason and Gibbs 1992). There is, however, little direct evidence of biased referral practices that identify and channel youth differently into mental health versus informal or juvenile systems (Garland et al. 2005).

Physician-patient communication. In a review of the literature of medical encounters, Hall et al. (1988) coded findings from studies of physician-patient communication along a number of variables including competence (technical and interpersonal) and positive talk (e.g., humor, empathy, approval, and friendliness). They reported that White patients received higher quality technical and interpersonal care, and more positive talk compared with African-American or Hispanic patients. Sleath et al. (2003) used audiotaped sessions to examine patient-physician encounters in general medicine and family practice clinics. Physicians treating patients with antidepressants were more likely to give information (including addiction potential, dose, side effects, etc.) to White than to Hispanic patients. White patients were more likely to volunteer information about their medications, and specifically to report complaints about their antidepressant therapy (Sleath et al. 2003). Physicians were equally responsive to complaints from White and Hispanic patients, changing the regimen or educating the patient. However, Hispanic patients were more likely to be nonadherent following their visit. An early study examining a tricyclic

antidepressant response in Hispanic and White outpatients (Marcos et al. 1982) indicated that Hispanic patients need lower doses of medication than White patients for adequate response, and report more side effects. About half the patients in Sleath's study were on TCAs. It is possible that underlying compliance is that Hispanic patients do not spontaneously report their problems with antidepressants and so do not obtain adequate information regarding these side effects to know how to manage them.

In summary, a number of variables appear to be important in contributing to the disparities present in access and quality of care to ethnic minority versus White patients. Ethnic minority youth appear to suffer depression at rates at least equivalent to the White population, though the possibility that cultural expressions of distress may be misunderstood by mainstream evaluators may result in underdiagnosis. There is only weak evidence that ethnic minority individuals prefer informal or alternative healers at a higher rate than do White families. However, two sets of variables appear to play an important role in help-seeking and ability to benefit from formal systems of mental health care for ethnic minority individuals: beliefs about the causes of and solutions to mental illness, and knowledge about treatment options and their efficacy. Of particular concern is that practitioners may underestimate their ethnic minority patients' (and their parents') need for education and their adverse effects. These factors may together contribute to lower rates for effective treatment of ethnic minority adolescents with depression.

Clinical Significance

Despite disproportionate representation with regard to the most troubling concomitants of depression such as suicidal behavior, ethnic minority youth present in mental health settings below the level of their need. Significant barriers such as those related to economic factors cannot be changed by the individual clinician. However, practitioners might consider the following implications of this review:

- The literature points to higher stigma against mental illness in minority groups, and the relationship between parental knowledge and acceptability of treatment. Clinicians with the opportunity to address the public can play an important role in education to promote destigmatization of depression and inform about resources for its treatment.
- Primary care providers play an important role in identification of depressive disorders in minority youth, because they seek treatment in mental health settings less frequently.
- Practitioners based in nontraditional mental health settings may be more likely to be in contact with vulnerable ethnic minority youth. Education of paraprofessionals in schools and community centers as to symptoms of depression may improve identification of minority youth.
- Many instruments to screen, assess severity, or track depressive symptoms have not been normed for ethnic minority youth. Their use should be supplemented with qualitative information.
- Clinicians aware of diagnostic bias, such as overdiagnosis of disruptive behavior disorders in ethnic minority boys, may be more careful in assessing previously diagnosed youth or those who may present with symptoms that obscure underlying depressed mood.
- Clinicians can play an important role in observation and delineation of common presentations that fall outside the formal templates for diagnosis. Collaborations between clinicians and researchers will be essential to further understanding of symptom manifestations in different cultures.
- At the engagement stage, an awareness of alternate models of mental illness and efforts to find common ground would promote the development of rapport with ethnic minority parents. Enquiry regarding preferences for treatment modality may result in enhanced adherence.
- There is no clear evidence for differential metabolization of pharmacological agents or of doses at which antidepressant efficacy as well as adverse reactions become apparent in treatment of ethnic minority youth. However, there are some suggestions that African-American and Asian-American individuals have a lower tolerance for some antidepressant medications.
- Health literacy can be lower, particularly in less acculturated individuals, and among majority culture individuals from the lower socioeconomic classes. Patients who do not ask about or voluntarily communicate information about side-effects may be at risk of low adherence.
- The importance of cultural sensitivity is unquestionable, and information regarding typical cultural patterns and methods to address barriers to engagement and treatment of specific ethnic minority families are available in the literature (e.g., Boyd-Franklin 2003; Sweeney et al. 2005; Pumariega et al. 2009). An awareness of the common presentations as well as shared values and beliefs of specific minority groups would certainly be helpful to the clinician seeking to treat their depressed youth. However, a complex understanding of all cultures encountered is impossible. Furthermore, individual diversity within a specific cultural group is likely to be large, and culture-specific information will not be invariably applicable. It is more important that clinicians be aware of their own assumptions and engage in ongoing attempts to challenge them and test cultural hypotheses, in a process that has been called ''maximizing cultural exchange'' (Chu 2007; Fields 2010). The patient and family would be essential partners in this process, ensuring that not only culture, but also individual variations applicable to the specific patient and family are incorporated as much as possible into treatment.

Disclosures

The authors certify that they have no financial relationships or financial disclosures to declare.

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