Mental Illness in Hispanics:
A Review of the Literature

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Abstract: Although Hispanics are the largest minority in the United States, we have only fragmentary information and scarce guidelines on the frequency, recognition, and treatment of mental illness in this population. In reviewing the literature on this issue, the authors found that Hispanics are younger, poorer, and less educated than the average American; have an average unemployment rate; are heterogeneous in aspects such as race/genetics, health care access/utilization, acculturation, and legal status; differ in risk of some mental illnesses and in risky behaviors according to birthplace/acculturation; are at increasing risk of behaviors and health issues that complicate mental illness and its treatment, such as obesity, diabetes, and sedentary lifestyle; have less access to health and mental health care and receive less care and lower-quality care; tend to receive mental health care in primary care settings, often face linguistic barriers, and are more likely not to have mental disorders detected; seem less likely to suffer from depression and anxiety but tend to have more persistent mental illnesses; are more likely to somatize distress and to report psychotic symptoms in the absence of a formal thought disorder; do not appear to differ from Caucasians in drug metabolism and pharmacokinetics; seem to have lower medication adherence, which could be a function of socioeconomic and linguistic or educational factors; seem to respond well to adapted psychotherapeutic and psychosocial interventions and receive significant additional benefit from supplemental services such as case management, collaborative care, and quality improvement interventions.

REVIEW

According to the 2000 census, Hispanics in the United States numbered 35.2 million, or 12.5% of the population (1). As of July 2004, their number was estimated at 41.3 million, the largest minority group in the country (2). Currently Hispanics account for one-half of the national population growth, and by 2050 they are expected to number 102.6 million, or 24.4% of the U.S. population (3).

In the United States, the terms "Hispanic" and "Latino" reflect a cultural identity based on language and geographical provenance; they are not racial definitions, and in fact they include people from several races. This identification seems to be strong and perdurable. According to the 2002 National Survey of Latinos (4), the proportion of Hispanics who defined themselves as Latino or Hispanic was 85% for the first generation, 77% for the second, and 72% for the third and later.

Despite these impressive numbers and the accepted validity of Hispanic as a distinct demographic and cultural category, we have only fragmentary evidence and scarce guidelines on the treatment of mentally ill Hispanic Americans. In this review, our goal is to present a comprehensive, synthetic overview of the research published in the United States that is relevant to the mental health and treatment of Hispanic Americans. We do not include studies of Hispanics in other countries, because the frequency, presentation, and treatment response of mental disorders are significantly influenced by environmental factors. Our review includes reports published from 1959 through November 2005.

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General Characteristics of Hispanic Americans

Compared with the overall population, Hispanics are younger, poorer, and less educated; they are more likely to be foreign born and to live with family; and they are less likely to speak English and to have health insurance. Their employment rate is close to the average U.S. rate (Table 1). Hispanics make up over 80% of the undocumented U.S. population, with an estimated 8.4 million in 2004 (5).

Heterogeneity of Hispanic Americans in Aspects Relevant to Mental Health

Despite a common ethnic identification, Hispanics are heterogeneous in some aspects that may influence the incidence, presentation, course, and treatment of mental illness, such as birthplace and acculturation, genetics and race, health care access and utilization, and language. For example, a recently published study found differences in alcohol, marijuana, and cocaine use among Hispanic students according to ethnic subgroup, language first spoken, parental education, urbanicity, and region (7).

The question of whether this heterogeneity detracts from the validity of studies on Hispanics does not have a simple answer. In many cases the report specifies which Hispanic population or subgroup was studied, or this information can be inferred from the location of the study. Other studies address subjects that traverse all or several of the Hispanic subgroups, such as monolingualism versus bilingualism, generational differences, or disadvantaged socioeconomic status. We simply want to emphasize that the generalizability of study results must be judged on a case-by-case basis.

Differences in Genetics and Race

Hispanic Americans include groups that are predominantly Native American, black or white, plus an admixture of all possible combinations. Table 2 presents estimates of the genetic pool of Mexican, Puerto Rican, and Cuban subgroups in the United States. Figures similar to those for the overall Mexican American population were reported for the Mexican American population of the San Luis Valley in Colorado (63% European, 34% Native American, and 3% African) (8). This genetic heterogeneity probably contributes to pharmacological differences among Hispanic subgroups, such as the different bronchodilator responses to albuterol between Puerto Ricans and Mexican Americans (9).

Differences according to Birthplace

Two out of five (40.2%) Hispanic Americans are foreign-born (1). This is an important consideration, because birthplace (U.S. born vs. foreign born) and acculturation seem to influence health and behavior as well as the risk of mental illness among Hispanic Americans (11). Recent studies have consistently shown lower rates of diagnosable disorders among immigrant than among U.S.-born Hispanics of several major subgroups, such as Mexicans and Cubans (12–14). Data from a large survey, the Mexican American Prevalence and Services Survey, indicated that total rates for DSM-III-R anxiety, mood, and substance disorders were 50% lower for immigrants than for the U.S. born (15). Similar differences have been reported for psychotic symptoms and illicit drug use (16–19). In a recent study, differences for mood, anxiety, and substance use disorders were observed not only for foreign-born Latinos but also for foreign-born non-Hispanic whites (20). However, studies of some specific groups, for example the elderly, have shown the opposite trend, toward higher levels of psychopathology in immigrants. Data from the Sacramento Area Latino Study on Aging showed a higher prevalence of depression among immigrants, bicultural Latinos, and less acculturated Latinos compared with U.S.-born and more acculturated groups (21). Probably the levels of acculturative stress change the direction of the effect for some Hispanic populations. A study of Mexican immigrants found that acculturative stress is a risk factor for depression and suicidal ideation, whereas social support and agreement with the decision to migrate are protective factors (22). For comparison, in a study of Latin American refugees in Sweden, the strongest independent risk mediator for mental illness was ethnicity, with Latinos having an odds ratio of 4.11, compared with age-, sex- , and education-matched Swedish controls (23).

Access to, Quality, and Utilization of Health Care and Mental Health Care

Hispanics are more likely to be uninsured, and even when insured, they have less access to medical care than other Americans. For example, in 2002, 35% of Hispanics reported being uninsured (vs. 14% of whites and 21% of African Americans) (4). Worse, the number of insured Hispanics, especially privately insured, seems to be diminishing faster than in other groups (Table 3).

In the 2004 National Healthcare Disparities Report, Hispanics scored lower than non-Hispanic

whites on about 90% of access measures (25). The recent National Comorbidity Survey Replication showed that, for Hispanics, the 12-month odds ratio of receiving treatment for mental disorders was 0.6 (95% CI, 0.5–0.8; $p<0.05$) compared with non-Hispanic whites (26). Even insured Hispanics seem to use services less. A recent study at the Department of Veterans Affairs (VA) found that the odds ratio of having a health visit in the previous year was 0.4 for Hispanics, compared with 2.2 for non-Hispanic whites (27). Besides this disadvantaged position for Hispanics as a whole, significant differences may exist in health care access among Hispanic subgroups, with a negative effect on Mexicans and Central Americans in particular (Table 4). Undocumented and/or immigrant Hispanics also have less access and use services less (28, 29).

Because Hispanics are younger overall than other ethnic groups, any issue affecting them has a disproportionate impact on the young. More than a quarter (25.7%) of Hispanic children lack health insurance, with Mexican children faring the worst (30.4%), followed by Central and South Americans (23.8%), other Hispanics (18.6%), Puerto Ricans (11.4%), and Cubans (9.3%), compared with 7.8% for non-Hispanic whites (31).

Different types of studies have shown that the quality of health care received by Hispanics is below average. Depressed Hispanics seem to be less likely than Caucasians to receive a prescription for an antidepressant, to actually take the medication, and to receive specialty care (32–35). Some studies suggest that, compared with Caucasians, Hispanics with psychosis are less likely to receive medication or to receive an atypical antipsychotic, more likely to receive a depot antipsychotic, and less likely to have appropriate trials of antipsychotic medications (36–39). The 2004 National Healthcare Disparities Report (25) indicated that Hispanics received a poorer quality of care than non-Hispanic whites on about 40% of quality measures. The reasons for this disparity seem to be complex. For example, Hispanic Medicare beneficiaries have an odds ratio of 0.36 for receiving hip replacement surgery compared with non-Hispanics (40). Given that the procedure is fully covered by Medicare, this finding suggests that underutilization of health services by Hispanics cannot be attributed solely to lack of health insurance. In a recent study of an insured adult population at the VA, researchers found a trend toward greater inequality in the delivery of outpatient mental health care for Hispanics (41). These racial/ethnic differences in the treatment of mental illness have persisted under Medicare managed care (42).

Table 1. Characteristics of U.S. Hispanic Americans and General Population

Characteristic	Hispanic	General Population
Median age (years)	26.0	35.4
Family households (% of total households)	81	68
Foreign born (%)	40.2	11.1
Language other than English spoken at home (%)	78.6	17.9
Language other than English at home and English spoken less than "very well" (%)	40.6	8.1
Age 25 years and older with high school or more education (%)	52.4	80.4
Age 16 years and older in labor force (%)	69.4	70.7
Median household income in 2003 (US$)	32,997	43,318
Living in poverty (%)	22.6	12.4
Health insurance in 2003 (%)	67.3	84.4

Sources: Ramirez (1) and DeNavas-Walt et al. (6)

REVIEW

The underutilization of mental health care by Hispanics, especially but not exclusively by Mexican Americans, has been noted for decades (43–46). This underutilization was recently demonstrated for Hispanics with schizophrenia or schizoaffective disorder who were receiving services in the public sector in San Diego: 19% of Latinos received case management services, compared with 30% of Caucasians and 17% of African Americans (47). Ethnic differences in utilization are not a simple issue. As shown in a study using data from the National Comorbidity Survey (NCS), to understand ethnic or racial disparities in specialty care, the effects of ethnicity or race should be analyzed in combination with variables related to socioeconomic status and environmental context (48).

Hispanics are significantly more likely to receive attention for mental disorders in primary care settings than in specialized settings, which is probably

Table 2. Estimates of the Genetic Pool of Hispanic American Subgroups (%)

Genetic Pool	Mexican	Puerto Rican	Cuban
Native American	31	18	18
Spanish	61	45	62
African	8	37	20

Source: Hanis et al. (10)

Table 3. Private Health Insurance Coverage Among Non-Hispanics and Hispanics Under Age 65, 1984–2002 (%)

Race/Ethnicity	1984	2000	2002
General population	69.1	67.0	65.2
White non-Hispanic	74.0	73.9	72.6
Black non-Hispanic	53.4	54.2	53.5
Hispanic (total)	52.9	46.1	43.4
Mexican	51.7	44.3	42.1
Puerto Rican	48.3	50.6	48.7
Cuban	57.6	53.5	52.2
Other Hispanic	57.7	48.0	44.2

Source: National Center for Health Statistics (24)

related to their underutilization of mental health care. Mexican Americans with mental disorders were found to have a 12-month utilization rate of 18.4% for general care providers and 8.8% for mental health specialists (49).

Among factors that complicate the issue of reduced access to mental health care for Hispanics, two are worth mentioning specifically: 1) knowing where to find a provider increases significantly the likelihood of using specialty mental health care (50); and 2) Latinos are more likely than Caucasians to perceive the health care system as unfair because of race or ethnicity (4, 51).

BEHAVIORS AND RISK FACTORS THAT COMPLICATE MENTAL ILLNESS AND ITS TREATMENT

Among Hispanics, the risk of health factors that can complicate mental disorders or their treatment, such as obesity, diabetes mellitus, and lack of exercise, is growing rapidly. For some risky behaviors, such as use of alcohol, tobacco, and illegal drugs, Hispanics seem to be at lower risk than Caucasians (Table 5). Yet, again, differences exist in alcohol-related problems among Hispanic subgroups, with Mexican Americans demonstrating more problems than Cuban or Puerto Rican Americans. Furthermore, Hispanics seem to be at higher risk of some alcohol-related problems, such as driving under the influence, male-to-female partner violence, and alcohol-related mortality (cirrhosis) (52, 53).

Like the risk of mental illness, these health risk factors seem to increase with acculturation and time since entering the United States. An analysis using data from the National Longitudinal Study of Adolescent Health (57) suggested that the acculturation of overweight-related behaviors, such as diet, smoking, and inactivity, is rapid; moreover, longer residence in the United States was associated with increased weight gain among Puerto Ricans and Cubans.

However, other studies show differences between Hispanic subgroups in this regard. For example, poorer health was associated with higher socioeconomic status and acculturation among Mexicans but with lower socioeconomic status and acculturation among Latinos from the Caribbean Islands (58).

FAMILY, ENVIRONMENT, AND MENTAL ILLNESS

As noted earlier, Hispanics are more likely to live with family (1). They also seem to be more likely to engage in closed networks, as opposed to the open networks of most Americans of Caucasian origin. This may have both beneficial and adverse effects. Closed networks appear to provide more emotional support to their members; however, they may eventually pose barriers to problem solving because of the lack of bridges to outside networks (59).

A recently published study comparing Mexican and Anglo American patients with schizophrenia and their families (60) found that "family warmth" seemed to work in opposite ways in the two ethnic groups—as a protective factor for the Mexican patients and as a risk factor for the Anglo American patients. In another study (61), researchers found that greater self-reported family cohesion appeared to have a protective effect against emotional distress for Latino and African American relatives of patients with schizophrenia, but not for Caucasian American relatives. Researchers in California found that Mexican American patients and relatives reported lower rates of expressed emotion than Caucasians. High expressed emotion predicted relapse for Caucasians but not for Mexican Americans (62).

LINGUISTIC BARRIERS AND COMMUNICATION WITH HEALTH CARE PROVIDERS

About half of adult Hispanics report having low English proficiency. According to the 2000 census, about 80% of Hispanics age 5 years and older speak Spanish at home, and half of those harbor doubts about their proficiency in English (63). According to the 2002 National Survey of Latinos, 47% of adult Hispanics are Spanish dominant, 28% are bilingual, and 25% are English dominant

Table 4. Yearly Use of Health Care Services Among Hispanic Subgroups (%)

Population	Ambulatory Care Visits (SE)	Any Emergency Department Visit (SE)	Any Prescription (SE)	Any Hospital Admission (SE)
Total U.S.	72.01 (0.42)	12.24 (0.28)	62.11 (0.42)	7.27 (0.19)
Non-Hispanic white	76.70 (0.44)	12.42 (0.35)	66.58 (0.50)	7.67 (0.24)
Total Hispanic	59.10 (0.90)	11.24 (0.46)	49.91 (0.87)	5.81 (0.33)
Mexican	56.44 (1.07)	10.22 (0.54)	48.90 (1.06)	5.55 (0.36)
Cuban	64.97 (4.32)	6.78 (1.99)	57.50 (4.66)	5.96 (1.55)
Puerto Rican	68.29 (2.67)	18.07 (1.54)	54.84 (2.50)	7.80 (1.41)
Central American/Caribbean	52.97 (3.13)	9.18 (1.76)	41.23 (3.09)	3.48 (0.74)
South American	62.24 (4.60)	10.26 (3.41)	43.54 (5.00)	6.58 (2.15)
English-only interview	63.19 (1.15)	12.95 (0.66)	53.61 (1.19)	6.22 (0.46)
Spanish or Spanish-English interview	52.42 (1.39)	8.94 (0.67)	43.40 (1.34)	5.14 (0.43)
Foreign born and less than 5 years in U.S.	42.74 (3.14)	9.42 (2.30)	35.81 (3.72)	4.99 (1.11)
U.S. born	64.02 (1.11)	12.29 (0.65)	53.13 (1.12)	5.19 (0.39)

Source: Weinick et al. (30)

(4). A significant number of Hispanics report difficulty communicating with doctors and other health care providers (4) (Table 6). This is worrisome, as poor English fluency in itself is a risk factor for less use of health care and mental health care services among Hispanics (64) (Table 7). Hispanic children whose parents had low English proficiency had triple the odds for fair or poor health status (65).

A significant number of Hispanics also have inadequate health literacy, even in Spanish, and have mistaken beliefs about mental illness. In a four-city study, rates of inadequate health literacy in Spanish among Spanish seniors ranged from 21.2% to 60% (66). A study of beliefs about the cause of mental illness among the elderly found that Hispanics were less likely than Caucasians or African Americans to endorse biopsychosocial causes of depression, and this lower endorsement predicted lower use of mental health services (67). Poor health literacy also seems to be higher among Hispanics with low English proficiency (68).

Moreover, once Hispanic patients access services, poor English proficiency is a risk factor for lower quality of care, delayed services, poorer follow-up, longer hospital stay, higher resource utilization, lower adherence to psychotropic medications, and patient dissatisfaction with provider and treatment (70–80). The authors of a study in Connecticut concluded that culturally sensitive clinics are not enough to address the difficulties monolingual Hispanics have in managing medications, which may be due to the persistent effects of the language barrier and low education levels (81).

Prevalence of Mental Disorders among Hispanic Americans

There is some debate on the frequency of the most common mental disorders, especially depression, in Hispanics (82), but the larger studies show lower caseness rates for Hispanics as a whole and for Mexican and Cuban Americans than for non-Latinos. A study using data from the National Health and Nutrition Examination Survey III (83) found that the prevalence of major depression was higher in Caucasians than African and Hispanic Americans; the opposite pattern was found for dysthymic disorder. The National Comorbidity Survey Replication (84) showed lower odds ratios for Hispanics compared with non-Hispanic whites for anxiety, mood, impulse control, and substance use disorders as well as for any disorder. Recently a large survey, the National Epidemiologic Survey on Alcoholism and Related Conditions (NESARC) (85), found 12-month prevalences of major depressive disorder of 4.27% for Hispanics, compared with 5.53% for Caucasians and 4.52% for African Americans. In the Hispanic Health and Nutrition Examination Survey 1982–1984 (14), however, Puerto Ricans had a significantly higher frequency of depression than Mexican and Cuban Americans. In a recent pooled analysis of the National Surveys on Drug Use and Health,

Table 5. Some Health Risk Factors That Affect the Treatment of Mental Disorders in Hispanics (%)

Factor	Hispanic	Non-Hispanic White	Non-Hispanic Black
Obesity (age 20 years and older, age and sex adjusted)			
Male	27.6	24.3	28.2
Female	27.2	21.1	39.3
Regular leisure-time exercise (age 18 years and older, sex adjusted)	22.7	33.9	24.1
Diabetes prevalence (age 20 years and older, age adjusted)	11.7	7.9	12.9
Tobacco use in past month (age 12 years and older, 2004)	23.3	31.4	27.3
Current illicit drug use (2004)	7.2	8.1	8.7
Alcohol use in past month (age 12 years and older, 2004)	40.2	55.2	37.1

Sources: CDC (54, 55) and SAMHSA (56)

2001–2003 (86), similar findings were noted for Hispanics and Puerto Ricans. However, according to the Youth Risk Behavior Survey of the Centers for Disease Control and Prevention, in 1999, Latino youths were significantly more likely than young African and European Americans to have attempted suicide, made a suicide plan, or seriously considered suicide (87). Finally, some disadvantaged Hispanic subpopulations seem to be at higher risk of mental illness—for example, the elderly, illegal aliens, and segregated or impoverished sectors (88–91).

However, even if Hispanics do have a lower risk of mental disorders, they seem to have more persistent disorders (92, 93). This finding seems logical, given the less favorable environment for Hispanics, their lower rates of access to and utilization of mental health care, and the lower quality of the care they receive.

We have no reliable data on the frequency among Hispanics of mental disorders that are difficult to detect in the usual surveys, such as bipolar disorder and schizophrenia (94). For bipolar disorder, an analysis of the NESARC data found that the lifetime odds ratio of DSM-IV bipolar I disorder was 0.6 for Hispanics compared with Caucasians (95). Half a century ago, Malzberg (96, 97) found that the rate of first admissions to mental hospitals, especially for dementia praecox, for Puerto Ricans in New York State largely exceeded their proportion in the population. At the same time, Jaco (98), in Texas, found lower rates of psychiatric admissions for Mexican Americans than for white and black Americans. Similar data were reported in California (99–100). In Puerto Rico, the figures from the Epidemiologic Catchment Area (ECA) study are in line with national data, and data from the Los Angeles ECA study show no statistical differences between Mexican Americans and non-Hispanic whites (101–103). However, the methodology of this ECA study is highly suspect (104). The question of the prevalence of schizophrenia among Hispanic Americans is of further interest because studies in countries with national registries consistently reveal a higher incidence of schizophrenia in disadvantaged immigrant populations (105). A recent meta-analysis concluded that a history of migration is an important risk factor for schizophrenia, suggesting a role for psychosocial adversity in the etiology of the disease (106).

Studies of dementia suggest that its frequency is significantly higher among Hispanics than Caucasians and that Hispanics are at higher risk of developing both Alzheimer's disease and vascular dementia (107–110).

Detection of Mental Disorders in Hispanic Americans

Hispanics seem to be at higher risk of not having mental health problems detected in primary care settings (111). In a study with 496 Mexican Americans, primary care providers noted depression in 21% of the patients who were found to have depressive disorders in a systematic evaluation (112). In a pediatric clinic, only 24% of Hispanic mothers with depression were correctly identified as depressed, compared with 31% of black mothers and 38% of other mothers (113). A study of elderly Medicare beneficiaries found that those in the "Hispanic or other" ethnic groups had an odds ratio of 0.72 for diagnosed depression compared with Caucasians (114). Several studies have suggested that rates of recognition and treatment of attention deficit hyperactivity disorder are lower in Hispanic children (115–118). This underrecognition seems to be influenced by not only clinician factors but also patient and environmental factors. Hispanic adolescents are less likely than Caucasians to have their mental health problems reported by caregivers (119). A study in California found high levels of maternal depressive symptoms among low-income Hispanic women, but only half of these women identified themselves as needing help with depression (120).

Diagnosis of Mental Disorders in Hispanic Americans

In the literature on the diagnosis of mental disorders in Hispanic Americans, we have mainly retrospective or small studies scattered over several decades, with conflicting results. The way Hispanics with mental illness are perceived seems to differ from the way Caucasians are perceived and seems to fluctuate over time. For example, from the 1960s to the early 1980s, studies consistently reported a tendency for higher disorganization and impairment among Hispanic than among nonminority patients with schizophrenia (121–125). However, studies from the 1980s to date report either no difference or a tendency for the nonminority group to be more symptomatic (126–134).

Some studies suggest that Hispanics are more likely than Caucasians to receive a diagnosis of a psychotic disorder and less likely to receive one of a mood disorder. In the 1980s, a review of the records of 76 patients with bipolar disorder showed that Hispanic (Puerto Rican) and black patients were more likely than whites to be misdiagnosed as having schizophrenia, particularly if they were young and had auditory hallucinations (135). A 7-year longitudinal study (136) of 936 inpatients in Texas who had at least four hospitalizations found that 44% of Hispanics who were initially diagnosed as having schizophrenia received a change in diagnosis during the study period, double the rate for Caucasians and African Americans. A study of a national sample of elderly inpatient veterans (137) found that African Americans and Hispanics were more likely than Caucasians to have a diagnosis of a psychotic disorder. However, a retrospective study in New Jersey examining new admissions in a large behavioral health system found that Hispanics, in contrast to African Americans, were not more likely than Caucasians to receive a diagnosis of schizophrenia, although they were disproportionately diagnosed as having major depression, despite higher levels of psychotic symptoms by self-report (138). A study using the Structured Clinical Interview for DSM-IV found that half of Hispanic adolescents diagnosed as having major depressive disorder met the criteria for bipolar disorder (139). A high frequency of psychotic symptoms in the absence of formal psychosis and associated especially with depression has been reported in Hispanic Americans. At a general medicine practice in New York City, psychotic symptoms were more commonly observed in depressed Hispanics than in depressed non-Hispanics (140). A study in Rhode Island found that Hispanics with major depression were more likely to report psychotic symptoms (141). A study in Boston found that 46% of outpatient Caribbean Latinos reported having hallucinations, but only 9% of them were diagnosed as having a thought disorder (142). A retrospective study of applicants for state benefits (143) found that Hispanics were more likely to endorse hallucinations but not to receive a diagnosis of psychosis.

A tendency for Hispanics to somatize distress has been repeatedly reported in Latin America, although the methodology of the studies has been criticized (144). A U.S. study using a personality inventory in claims for workers' compensation (145) found that Hispanics were more likely than Caucasians to somatize. In a study in California (146), depressed Latinas and African American women scored significantly higher than Caucasians on somatization. A recent study of anxiety and fears (147) found that parents of Mexican children in Mexico and Hispanic American children in the United States reported more worry and physiological symptoms for their children than Caucasian parents.

Table 6. Proportion of Latinos and Latino Subgroups Reporting Language Difficulties in Communicating With Health Care Providers (%)

Total Latinos	29
Foreign-born Latinos	42
Native-born Latinos	8
Mexican	31
Puerto Rican	15
Cuban	26
Total Central American	42
Total South American	32

Source: Pew Hispanic Center/Kaiser Family Foundation (4)

Effect of Language on Diagnosis of Mental Disorders

Some studies and case reports have addressed the influence of language on psychiatric diagnosis and assessment in Hispanics, but the issue remains unsettled. A study in New York published in 1973 (148, 149) showed that Hispanics with schizophrenia were deemed sicker when interviewed in English. The authors posed three hypotheses: 1) the differences were due to raters' prejudices; 2) the patients underwent change when they spoke English, probably because of the tension, and "gave up;" and 3) the English raters' frame of reference was

Table 7. Language and Unadjusted Relative Risk (RR) for Decreased Health Care Use

	Physician Visit RR (95% CI)	Mental Health RR (95% CI)
Hispanic, English-speaking	0.94 (0.84–1.04)	1.07 (0.89–1.30)
Hispanic, Spanish-speaking	0.77 (0.72–0.83)	0.50 (0.32–0.76)
Black	1.01 (0.92–1.10)	0.86 (0.72–1.03)

Note: Non-Hispanic white=1
Source: Fiscella et al. (69)

not applicable to the Spanish-American patients. A 1970 report from New Jersey (150) described several cases of foreign-born forensic patients, mostly Hispanic, who showed psychotic symptoms in interviews in their native language but not in English. A study published in 1981 comparing separately recorded Spanish- and English-language interviews (151) found that subjects expressed more symptoms during the Spanish interview. In a more recent New York study (152), symptom severity among Hispanic patients with schizophrenia and depression was rated highest in bilingual interviews, followed by those in Spanish, and lowest in those in English. Hispanic clinicians rated symptom severity higher than did Anglo clinicians.

Medication Treatment of Mentally Ill Hispanic Americans

Metabolism/Pharmacokinetics of Psychotropic Medications

Little information is available on the metabolism of medications in Hispanics. However, the evidence generated so far does not support the notion of different dosing guidelines for this ethnic group. Several relevant studies on the cytochrome P450 system have been published. For P450 enzyme 2D6 (CYP 2D6), perhaps the most important one in psychopharmacology, the initial study by Lam et al. (153), the larger one by Mendoza et al. (154), and the recent one by Casner (155), all of them with Mexican American subjects, found low proportions of slow metabolizers (4.5%, 3.2%, and 6%, respectively), with frequencies similar to that of Caucasians. As for the CYP 3A4 genotype, Paris et al. (156) found that the frequency of the active (AA) variant in Caucasian and Hispanic males (93% and 80%, respectively) was intermediate between those of Asian (100% AA) and African American males (19% AA). In the methylenetetrahydrofolate reductase gene, the frequency of two single-nucleotide polymorphisms was high and was comparable between Puerto Rican Hispanics and Caucasians (157). A study on gut metabolism via CYP 3A4 or transport by P-glycoprotein, using cyclosporine, showed that the mean bioavailability in Hispanics (42.1%) was comparable in Caucasians (39.6%) and significantly higher than in African Americans (30.9%) (158). The genotypes for the aldehyde-dehydrogenases ADH2 and ALDH2 in Mexican Americans were found not to be different from those of Caucasians, although a higher frequency of the mutant CYP 2E1 was noted among Mexican Americans, which may have a role in the growing rate of alcoholic liver disease in this population (159). In contrast, however, Poland et al. (160) report no difference between Mexican and European Americans for CYP 2E1 and 3A activity.

Lam et al. (161) measured steady-state haloperidol and reduced haloperidol concentrations in 250 patients with schizophrenia from four ethnic groups (African, Caucasian, and Mexican in the United States, and Chinese in Taiwan). They found a statistically significant difference in the proportion of patients with low ratios of reduced haloperidol to haloperidol concentration between the Chinese and the other three groups but not among the non-Chinese groups.

Response to Psychotropic Medications

Large studies sponsored by pharmaceutical companies include too few minority subjects. A review (162) of the studies submitted to the FDA for the 185 new molecular entities approved between Jan. 1, 1995, and Dec. 31, 1999, showed that when race could be determined from the records, 88% of the participants were white, 8% African American, 3% Hispanic, and 1% or less each of other minorities. Even worse, it showed that the participation of minorities in clinical trials was decreasing. When comparisons were made by year, the participation of African Americans, the minority with the largest share, decreased from 12% in 1995 to 6% in 1999.

The large ongoing treatment studies sponsored by the National Institute of Mental Health have addressed this problem with variable success. In the Clinical Antipsychotic Trials of Intervention Effectiveness, the proportion of Hispanics is about 12% (163). In the Systematic Treatment Enhancement Program for Bipolar Disorder, it is only 3.5% (164).

In a pooled analysis of 104 double-blind placebo-controlled trials of paroxetine for depres-

sive and anxiety disorders, Hispanics appear to have a lower response rate to medication and a higher response rate to placebo (165).

MEDICATION TREATMENT OF DEPRESSION

We found only one randomized placebo-controlled (166) study and four open-label studies (167–170) on the efficacy of pharmacological treatment of depression in Hispanic Americans. The randomized study included 118 subjects, 17 of them Hispanics, of which only three were completers (two responders). With these low figures, it is impossible to draw any conclusions.

MEDICATION TREATMENT OF SCHIZOPHRENIA

We found only one prospective study of the efficacy of antipsychotic treatment in Hispanic Americans (171). This small open-label study of risperidone found that Hispanic patients (n=10) showed a faster response and more adverse events than non-Hispanic patients (n=8).

Retrospective studies report that Hispanics seem to receive antipsychotic doses similar to (172, 173) or lower than (174–177) those Caucasians receive. These findings contrast with the repeated finding that African Americans seem to receive higher antipsychotic doses than Caucasians.

As for risk factors and adverse effects of antipsychotics, Hispanic patients with schizophrenia have been shown to have a significantly higher prevalence of metabolic syndrome (71% vs. 41% for non-Hispanics), with differences among Hispanic subgroups (70% in Cuban Americans vs. 88% in other Hispanic subgroups) (178).

MEDICATION ADHERENCE

Some studies show that Hispanics are significantly less adherent than Caucasians to antipsychotic and antidepressant medications (179, 180). However, the perceived differences in medication adherence in Hispanic Americans are likely better explained by socioeconomic and communication (i.e., monolingualism) factors by than cultural factors. Thus, a study in Texas reviewing the records of Hispanic outpatients with schizophrenia (181) found rates of compliance in line with those for patients with schizophrenia of other ethnic backgrounds. The authors found support from the family to be a reliable predictor of adherence. A study in which community-based patients in Ohio were interviewed (182) found that although medication adherence was lower for depressed Latinos than for depressed Caucasians, the figures were similar for patients with schizophrenia of both ethnic groups, which may reflect the higher degree of support that schizophrenics receive. A Connecticut study in which an electronic cap to monitor bottle openings was used with a convenience sample of patients with various diagnoses, including schizophrenia, reported a significantly lower rate of medication adherence in monolingual Hispanics than in Caucasians (183).

PSYCHOTHERAPY AND PSYCHOSOCIAL INTERVENTIONS

A recent publication reviewed various psychosocial interventions for ethnic minorities (184). Here we focus on those with the most evidence of clinical efficacy.

PSYCHOTHERAPY FOR DEPRESSION

Studies of cognitive behavior therapy and interpersonal psychotherapy with women and adolescents in Puerto Rico show efficacy comparable to that found for other ethnic groups (185, 186).

In the continental United States, we found five studies:

- A randomized controlled trial using interpersonal psychotherapy, cognitive behavior therapy, supportive psychotherapy, or supportive psychotherapy plus imipramine therapy in depressed HIV-positive patients of Caucasian, African, Hispanic, and Asian American ethnicities (187)
- A randomized trial using cognitive behavior therapy alone or with clinical case management for low-income depressed outpatients of Caucasian, African, Hispanic, Asian, and Native American ethnicities (188)
- A randomized controlled trial comparing medication, psychotherapy intervention, and referral to community mental health services for low-income African American, Caucasian, and foreign-born Latina women (189)
- A study of quality improvement interventions for depressed Caucasian, African American, and Latina women (190, 191)
- A randomized trial comparing collaborative care and treatment as usual for depressed elderly patients from different ethnic groups (192)

In general, the results of these studies do not suggest an association between Hispanic ethnicity and outcome of psychotherapy treatment. However, Hispanic or Spanish-speaking participants seem more likely to improve when they

receive supplemental case management, collaborative care, or quality improvement interventions as opposed to treatment as usual.

PSYCHOTHERAPY FOR ANXIETY/PHOBIC DISORDERS IN CHILDREN

Two randomized clinical trials of cognitive behavior therapy for children with anxiety/phobic disorders showed similar positive responses and gain maintenance for Hispanic and Caucasian children and no moderating role for ethnicity in the outcome (193–195).

PSYCHOSOCIAL INTERVENTIONS IN PATIENTS WITH SCHIZOPHRENIA

Hispanics seem to benefit at least as much as other groups from adapted psychosocial rehabilitation and training. The outcome of psychotherapeutic interventions, like behavioral family management, however, may be more unpredictable:

- A randomized study of behavioral family management compared with standard case management for 42 low-income Spanish-speaking patients found that sociocultural factors affect the response to intervention, with behavioral family management increasing the risk of exacerbation of symptoms in the less acculturated patients (196).
- Pooled data from two studies of community-based psychosocial rehabilitation with 226 people who had a schizophrenia spectrum disorder, including Latinos (n=37, 16%), Caucasians, and African Americans, showed similar evolution over time and comparable outcomes for the three groups (197).
- A 3-month intervention study of skills training with two modules, medication management, and symptom management with 92 Latino patients and their designated relatives showed favorable outcomes at 6 months in key domains of psychopathology, relapse, rehospitalization, and social functioning (198).
- A 24-session intervention program in Spanish to develop skills in six areas (medication management, social skills, communication skills, organization and planning, transportation, and financial management) showed improvement in everyday living performance at 6, 12, and 18 months, with no significant change in psychopathology (199, 200).

CONCLUSIONS AND RECOMMENDATIONS

Our purpose in this review was to synthesize a broad bibliography and to gauge the status of the current knowledge base on Latino mental health research. Hopefully, the review has made apparent the areas of glaring weakness in the research "menu." We have not attempted a deep analysis, nor an exacting interpretation of this literature beyond primary findings, and inevitably many articles have been excluded in our effort to focus on the most relevant work for our purposes. It is our earnest hope that the rapidly accumulating knowledge about Latino mental health will be examined by researchers and practitioners and that gaps in the knowledge will be addressed through high-quality research followed by rapid dissemination of findings to practitioners. Outstanding problems such as the low enrollment rates in intervention trials require urgent attention from federal research and regulatory agencies. As this review demonstrates, disparities in mental heath care for Latinos remain numerous and are reinforced by inadequate information, which itself could serve to impede progress.

Here are some of the gaps in the research that in our opinion urgently need to be addressed:

- We need to learn the frequencies of disorders such as schizophrenia and bipolar illness and to define which groups are at high risk of mental disorders among Hispanic Americans.
- Research is needed on ways to improve access to mental health care for Hispanics.
- Research is needed to improve the identification and treatment of mentally ill Hispanics in primary care and interdisciplinary settings.
- We need to devise means of overcoming specific barriers to mental health care for Hispanics, such as low English proficiency, low educational level, and low health literacy.
- For more effective diagnosis and treatment, more research is needed on differences in the clinical presentation and course of mental illnesses in Hispanics.
- We need to increase the participation of Hispanics in core descriptive, genetic, pharmacological, and psychosocial intervention trials (with the latter adapted as necessary).

In closing, we offer providers who treat Hispanic patients some practical lessons drawn from our review:

- It is important to know the cultural traits that Hispanics share. Yet at the same time

we must look for intragroup differences that can influence mental illness and its treatment, such as birthplace, degree of acculturation, English proficiency, and health literacy.

- Cultural sensitivity is critical, but some barriers, such as those presented by language and poor educational level, require specific interventions.
- We must keep in mind that Hispanics are more likely than average to experience non-ethnic-specific barriers to mental health care, such as lack of insurance or medication coverage, ignorance about services, lack of transportation, inability to obtain permission to leave work, and lack of access to child care services. All these factors can significantly affect attendance and compliance.
- Hispanics, especially those who are foreign born, seem to be at lower risk of depression and anxiety disorders but seem to have more protracted illness, possibly as a result of the barriers listed above.
- Hispanics tend to receive mental health care in general care settings. However, for various reasons, including a lower likelihood of self-identification as having a mental disorder, Hispanics are more likely to have mental disorders go unrecognized by health providers.
- We know little about differences in the presentation of mental disorders in Hispanics. Until this gap in our knowledge is filled, we should use inclusive rather than exclusive diagnostic criteria. We also must remember that Hispanics seem more likely to somatize distress and to report psychotic symptoms in the absence of a thought disorder.
- Similarly, we know little about Hispanics' response to psychiatric medications. Until we learn more, we should use the usual guidelines but provide careful follow-up, especially regarding side effects and compliance. We must also keep in mind that Hispanics are at higher risk of developing metabolic syndrome, obesity, and diabetes.
- To the extent that the literature permits generalization, evidence-based psychotherapeutic and psychosocial interventions appear to be as effective with Hispanics as they are with mainstream treatment populations. However, what remains unknown is whether culturally tailoring these interventions might further enhance treatment effectiveness.

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