
From Documenting to Eliminating Disparities in Mental Health Care for Latinos

Steven R. López and Concepcion Barrio
Alex Kopelowicz
William A. Vega

University of Southern California
University of California, Los Angeles
University of Southern California

The U.S. Surgeon General's report Mental Health: Culture, Race and Ethnicity—A Supplement to Mental Health: A Report of the Surgeon General (U.S. Department of Health and Human Services, 2001) identified significant disparities in mental health care for Latinos and recommended directions for future research and mental health services. We update that report by reviewing five groundbreaking research projects on the mental health of Latinos that were published since 2001. National studies of adults and children, longitudinal designs, and analyses of Latino subgroups characterize these investigations. Despite the increasing sophistication of disparities research, these landmark studies, as well as the research in the supplemental report, can be characterized as documenting disparities in care. We argue that the next wave of research should give greater attention to reducing and eliminating disparities. Accordingly, we apply Rogler and Cortes's (1993) framework of pathways to care to the study of Latinos with schizophrenia. Specifically, we draw on research regarding the recognition of illness, social networks (families) and their association with the course of illness, and interventions. We illustrate examples at each pathway that have the potential to reduce disparities. We argue that implementing interventions synchronously across multiple pathways has considerable potential to reduce and eventually eliminate disparities in mental health care.

Keywords: disparities, mental health care, schizophrenia, Latinos

The U.S. Surgeon General's report *Mental Health: Culture, Race and Ethnicity—A Supplement to Mental Health: A Report of the Surgeon General* concluded that the greatest burden of mental illness in the United States befalls the largest ethnic and racial minority groups (U.S. Department of Health and Human Services, 2001). The report documented the significant disparities in mental health care for African Americans, American Indians, Asian Americans, and Latino Americans. For example, it noted that immigrants of Mexican origin with mental disorders were much less likely to access mental health services in the past year than were U.S.-born Mexican Americans (Vega, Kolody, Aguilar-Gaxiola, & Catalano, 1999) or the U.S. population (Kessler et al., 1999).

In this article, we focus our attention on Latinos. Addressing the disparities of mental health care for Latinos

is of particular importance given their considerable population growth in the United States. The 2010 Census reports that Latino Americans now comprise the largest ethnic/racial minority group in the United States (50.5 million, or 16.3%), having surpassed African Americans (38.9 million, or 12.6%; Humes, Jones, & Ramirez, 2011). The population increase can be observed across the age ranges. For example, Latinos younger than 18 years of age make up a higher proportion of the nation's youth (23%) than the proportion of Latinos in the United States (16.3%; National Council of La Raza, 2011). Latinos are also living longer than the overall U.S. population (Arias, 2010). Increases in the geographic distribution of Latinos are being observed as well. During the last decade, the number of Latinos at least doubled in size in states unaccustomed to the presence of Latinos (Alabama, Arkansas, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, South Dakota, and Tennessee; Ennis, Rios-Vargas, & Albert, 2011). Research regarding disparities in mental health care can help guide the service delivery system to better meet the mental health needs of the growing number of Latinos.

In this article, we first review significant advances in mental health disparities research for Latinos since the publication of the U. S. Surgeon General's supplemental report in 2001 (U. S. Department of Health and Human

Editor's note. This article is one of three in a special section presented in this issue of the *American Psychologist* (October 2012) as a 10-year follow-up to the 2001 Surgeon General's report *Mental Health: Culture, Race and Ethnicity—A Supplement to Mental Health: A Report of the Surgeon General*. The other articles in the special section address mental health disparities among African Americans (Snowden, 2012) and Asian Americans (Sue, Cheng, Saad, & Chu, 2012).

Authors' note. Steven R. López, Department of Psychology, University of Southern California; Concepcion Barrio, School of Social Work, University of Southern California; Alex Kopelowicz, Department of Psychiatry and Biobehavioral Sciences, University of California, Los Angeles; William A. Vega, Roybal Institute on Aging, School of Social Work, University of Southern California.

The writing of this article was supported in part by the Substance Abuse and Mental Health Services Administration, the Foundation for Psychocultural Research, and the National Institute of Minority Health and Health Disparities.

Correspondence concerning this article should be addressed to Steven R. López, Department of Psychology, University of Southern California, 3620 McClintock Avenue, SGM 1001, Los Angeles, CA 90089. E-mail: lopezs@usc.edu



Steven R. López

Services, 2001). We find that the major research projects in the last decade have considerably improved the documentation of disparities. Much less attention, however, has been given to the reduction and elimination of disparities. Accordingly, in the second section, we focus on schizophrenia research from the last decade, as it has important implications for the reduction of disparities in mental health care. We frame our discussion of reducing disparities by applying Rogler and Cortes's (1993) framework of pathways to care.

Significant Advances in Research on Mental Health Disparities for Latinos Since 2001

There are a number of exciting developments in the study of disparities in mental health care for Latinos. We selected studies that represent what we consider to be among the very best investigations published during the last decade. Two national surveys of U.S. majority and minority groups were published after 2001. One was the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC; Grant et al., 2004), and the other was the Collaborative Psychiatric Epidemiology Surveys (CPES). The NESARC is characterized by its large national sample of 43,093 respondents (24,507 non-Latino Whites, 8,308 Latino Americans, 8,245 African Americans, and 2,033 Asian Americans, Pacific Islanders and Native Americans combined; Grant et al., 2004). The CPES comprises three nationally representative surveys of both majority and minority groups in the United States. Similar instruments, sampling methods, and timelines (2001 to 2003) were used to foster cross-survey comparisons. The National Comorbidity Survey–Replication (NCS-R; Kessler et al., 2004) is

the first of the three surveys. It was based on a probability sample ($N = 9,282$) of the United States (the 48 contiguous states) in which non-Latino Whites were primarily represented (73%) with much smaller proportions of minority group members (non-Latino Blacks, 12%; Latinos, 11%; and others, 4%). This sample was composed of English-speaking individuals 18 years of age and older. The National Survey of American Life (NSAL; Jackson et al., 2004) was the second survey and focused on national samples of adults of African origin (18 years and older) including African Americans ($N = 3,570$), Afro-Caribbeans ($N = 1,623$), and non-Latino Whites ($N = 891$). The third mental health survey, the National Latino and Asian American Study (NLAAS; Alegría et al., 2004), obtained nationally represented samples of Latinos ($N = 2,554$) and Asian Americans ($N = 2,095$) 18 years of age and older (Abe-Kim et al., 2007).

The NLAAS and the NESARC have made major contributions to advancing our understanding of the mental health status of Latinos residing in the United States (not including the island of Puerto Rico). Most important, the NLAAS and the NESARC provide the first national estimates of Latinos' prevalence rates (Alegría, Mulvaney-Day, Torres, et al., 2007; Grant et al., 2004) and service use (Alegría, Mulvaney-Day, Woo, et al., 2007), building on prior studies that focused on specific locales, such as Fresno County, California (Vega et al., 1998). Another contribution is that the NLAAS and the NESARC included both Spanish-speaking and English-speaking individuals. Prior reports of Latino subsamples in U.S. national samples are limited given that only English-speaking persons were interviewed (e.g., Breslau et al., 2007). A third major contribution of the studies is that the major Latino subgroups were sampled (NLAAS: Mexicans $N = 868$, Puerto Ricans $N = 495$, Cubans $N = 577$, and others $N = 614$; NESARC: Mexicans $N = 4,558$, Puerto Ricans $N = 997$, and Cubans $N = 450$). This has enabled investigators to examine within-group differences. Finally, given that the three CPES projects (NCS-R, NALS, and NLAAS) used the same core measures, analyses have been carried out to compare the Latino national sample with national samples from the other major racial and ethnic groups (African Americans, Asian Americans, and non-Latino Whites).

There are several main findings from the many reports generated by the NLAAS and NESARC investigators. With regard to prevalence rates, there are three key findings. First, Latino Americans as an overall group (29.7%, NLAAS, Alegría et al., 2008) and Mexican Americans as the largest subethnic group (36.7%, NESARC, Grant et al., 2004) were found to have significantly lower lifetime prevalence rates of any mental disorder than non-Latino Whites (43.2%, NCS-R, Alegría et al., 2008; or 51.2%, NESARC, Grant et al., 2004). The authors speculated that cultural factors such as close-knit families may contribute to the lower prevalence rates for Latinos. Second, the lifetime prevalence rates for any disorder vary significantly across Latino subgroups, from Puerto Ricans (37.4%), with the highest rate, to Mexicans (29.5%), Cubans (28.2%), and other Latinos (27%, Alegría et al., 2008). Third, the immi-

Concepcion Barrio



grant or nativity “effect” is clearly observed for Latinos with any lifetime disorder (e.g., 23.8% for foreign born, 36.8% for U.S.-born, NLAAS; Alegría, Mulvaney-Day, Torres, et al., 2007) and for Mexican-origin adults with any lifetime disorder (e.g., 28.5% for foreign born and 47.6% for U.S.-born, NESARC; Grant et al., 2004). When the Latino subgroups are disaggregated, however, the immigrant or nativity “effect” is not consistently observed for Puerto Ricans and Cuban Americans (Alegría et al., 2008; Alegría, Mulvaney-Day, Torres, et al., 2007). The variability of both lifetime prevalence rates and the immigrant effect across Latino subgroups points out the importance of the differential social and historical contexts associated with the Latino subgroups (Gil & Vega, 1996).

A closer examination of the CPES for both prevalence rates and service use of those with major depression indicates the value of combining the NLAAS and other CPES studies to identify more nuanced disparities than previously identified (González, Wassim, Whitfield, & Vega, 2010). Consider the data with regard to Mexican-origin adults and non-Latino Whites. The two groups have similar one-year prevalence rates (8.0% vs. 8.3%) and severity ratings, suggesting at least equal mental health needs.¹ With regard to chronicity, Mexican Americans were more likely to have recurrent major depressive episodes compared to non-Latino Whites. Similarly, the receipt of guideline-concordant treatment for depression (pharmacotherapy: the use of antidepressants for 60 days under the supervision of the prescribing clinician for at least four visits; psychosocial therapy: at least four visits to a mental health professional in the past year, with the visits lasting on average 30 minutes) also reveals significant disparities (Mexican Americans, 12.1%; non-Latino Whites, 23.1%).

Puerto Ricans have a different pattern of findings. They have higher prevalence rates of major depression

(11.9%) and more chronic conditions than non-Latino Whites, yet the quality of care as suggested by guideline-concordant care (24.4%) does not differ from that of non-Latino Whites (23.1%). Disaggregating the Latino group and examining specific areas of need and quality care reveals a more nuanced picture of disparities with corresponding targets for intervention. Attention to the higher prevalence rates of Puerto Ricans and to improving the quality of care for Mexican Americans is needed. These selected findings reveal the richness of the CPES database and the increasing sophistication of Latino mental health research.

The Boricua Youth Study, a child epidemiologic study of disruptive behavior disorders among Puerto Rican youths, represents a second major advance (Bird et al., 2006). One striking feature of this study is the design—a comparative longitudinal survey of Puerto Rican youths on the island of Puerto Rico ($N = 1,353$) and on the mainland (South Bronx, $N = 1,138$). Two distinct environmental contexts provide a valuable vantage point to examine the role of social and cultural factors as they relate to the development of disruptive behavior disorders. This design is important because prior research (Canino et al., 2004) observed that Puerto Rican island youth have lower rates of disruptive behavior disorders than U.S. youth. Thus, this study has the potential to identify factors that are associated with the lower likelihood of the expression of disruptive disorders. Multiple reports have already been published on a wide range of related topics, such as trauma and alcohol initiation (Wu et al., 2010). The Boricua Youth Study’s main finding concerns the different trajectories of disruptive behavior disorders and the severity of antisocial behavior in Puerto Rican island youth and South Bronx youth. At Time 1, the children at the two sites did not differ with regard to their risk for disruptive behavior disorders or the severity of antisocial behavior. However, in two follow-up assessments spaced about a year apart, compared to children from the South Bronx, children from the island of Puerto Rico had a decreasing trajectory in both measures (Bird et al., 2007). Although a subsequent report examining the role of acculturation and cultural stress sheds little light on the divergent trajectories in the severity of antisocial behavior (Duarte et al., 2008), the longitudinal design across two environmental contexts is both novel and quite promising in identifying the role of the social world in the development and course of given disorders and related behavior.

The Quality Improvement for Depression Treatment in primary care clinics is the third groundbreaking research project. Wells and colleagues (2000) launched an ambitious intervention-based study, which they refer to as Partners in Care. Their aim was to improve the quality of care for depression in 46 health clinics within six managed systems of care across the United States, including one in San Luis, Colorado, and one in San Antonio, Texas. Of the

¹ Mexican Americans (14.5%) appear to have even lower lifetime rates of depression than non-Latino Whites (20.4%).

**Alex
Kopelowicz**



enrolled sample of 1,356 patients, Mexican Americans, who were oversampled, comprised 30% and African Americans comprised 7%. The study was a randomized controlled trial with usual care ($N = 443$) and two quality improvement intervention conditions—medication management with nurse follow-up ($N = 424$) and cognitive-behavior therapy for 12–16 weeks ($N = 489$). There were three main findings. First, patients in the quality improvement conditions (6 months, 51%; 12 months, 59%) were more likely to receive appropriate antidepressant medication or specialty counseling than patients in usual care (6 months, 40%; 12 months, 50%). Second, clinical outcomes improved in the quality improvement conditions. Compared to patients in usual care (6 months, 50%; 12 months, 51%), patients receiving the medication management and cognitive-behavior therapy were less likely to meet criteria for probable depression (6 months, 40%; 12 months, 42%). Third, the researchers also found that relative to the usual care condition, the quality improvement interventions led to significantly greater job retention among those already employed at baseline (Wells et al., 2000). Altogether the study demonstrated that interventions at the system level can increase the level of appropriate care for primary care patients with depression and, in turn, improve both their clinical and social functioning.

Follow-up analyses indicated that patients' ethnicity moderated the treatment effects (Miranda et al., 2003). First, the quality improvement interventions increased the level of appropriate care for the three groups—Latinos, African Americans, and non-Latino Whites. The effects on clinical functioning (i.e., rates of probable depression), however, were observed only in the Latino and African American samples, not the non-Latino White sample. In contrast, the improvement in employment was only ob-

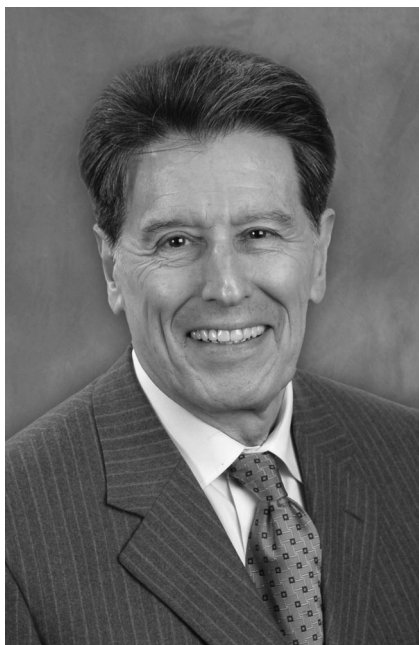
served in the sample of non-Latino Whites and not Latinos and African Americans. The 5-year follow-up found that for Latinos and African Americans, the cognitive-behavioral therapy intervention had the greatest effect on the reduction of probable depression (Wells et al., 2004). Moreover, this intervention reduced unmet need for the minority group members (those with depression who did not receive appropriate care) but not for non-Latino Whites. The important point of this study is that there are clear, albeit modest, steps that can be taken to improve the treatment of depression for Latinos in primary care clinics, specifically, applying guideline-consistent treatment. Doing so can improve the mental health status of Latino patients, and such improvements can be observed five years after baseline.

The fourth major advance in the mental health research on Latinos in the last decade is the development of statistical models to assess longitudinal trends in national disparities in health care (Cook, McGuire, & Miranda, 2007). This research was based in part on the operationalization of disparities in health care in the landmark report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* (Institute of Medicine, 2003). Cook and colleagues examined a national database (Medical Expenditure Panel Surveys) of services for persons over the age of 18 during a five-year period (2001 to 2004, $N = 67,581$). These investigators defined *disparity* as the difference between Latinos and non-Latino Whites in having any mental health service visit in the past year and in total mental health care expenditures (e.g., prescription drugs, inpatient care, outpatient care, and emergency care).² Based on the Institute of Medicine report, they carried out their analyses by statistically adjusting for possible mental health differences between the two ethnic groups. Statistical “controls” for socioeconomic status (SES) differences were also deemed important so that identified disparities in care concerned race/ethnicity, not SES. When they adjusted for mental health differences and SES, these investigators (a) found evidence of disparities in both mental health visits and expenditures and (b) observed that the noted disparities appeared to have increased sharply from 2000 to 2001 and remained high. Thus, not only are there disparities in mental health care for Latinos, but they appear to have worsened, at least from 2000–2001 to 2003–2004.

This approach to the assessment of disparities contributes greatly to the study of Latino mental health for several reasons: (a) It delineates a specific analytic method to identify disparities in care; (b) it uses available administrative databases; (c) it is longitudinal in nature; and (d) it provides a national perspective. This cost-effective, national surveillance approach over time complements the costly, cross-sectional, episodic psychiatric epidemiology studies that are frequently the most cited reports of disparities. In addition to monitoring disparities, this approach

² They also examined Black and White disparities, but given the focus of this article we report only the findings regarding Latinos and non-Latino Whites.

William A. Vega



could be used to assess whether initiatives intended to reduce disparities actually accomplish that goal. For example, a system-wide initiative could be undertaken, and an assessment of change in indicators before and after the intervention could determine whether the initiative achieved the goal to reduce Latino–White discrepancies in care.

The final landmark study addressed the use of mental health services by Latino youth. Kataoka, Zhang, and Wells (2002) carried out analyses of three large national comparative surveys ($N = 21,824$) of Latino, African American, and non-Latino White parents' reports of their youths' (ages 3–17) mental health service use and problem behavior. They found that Latino children and adolescents were significantly less likely to use mental health services in the past year (3.9% to 5.8%) than were African American (4.9% to 6.7%) and non-Latino White youths (6.4% to 8.1%). Moreover, the authors demonstrated that the difference in reported service use was not a function of different levels of needs. Only 11.6% of Latino youths with the highest need had used mental health services, whereas nearly 24% of African American and non-Latino White youths with the same high level of need had obtained mental health care. This pattern of findings was replicated across three independent national surveys and is consistent with adult mental health service use data that indicate low service use among Latinos, especially persons of Mexican origin.

The five projects reflect exciting developments in research on disparities in mental health care for Latinos. Three studies were nationally based, and the quality improvement study took place across many facilities in several cities. The scope of this innovative research regarding disparities appears to have broadened signifi-

cantly since the publication of the U.S. Surgeon General's supplemental report (U.S. Department of Health and Human Services, 2001); prior to that, most disparities research had been local. Although there will always be a need for the local assessment of disparities, if we are going to impact national policy, rigorous research studies with a broad scope, like those reviewed, are needed. Also, there is some attention to subgroup analyses, as reflected in the NLAAS and CPES reports. Such research points out the considerable variability of mental health needs within Latino subgroups and can help policymakers develop plans that fit the specific Latino group being served in specific communities. A strength of two of the landmark studies is their longitudinal design. Our understanding of the mental health needs of Boricua youth and the trends in national disparities benefit greatly from multiple assessments taken over time.

The one limitation of these landmark studies, as well as of most of the research summarized in the Surgeon General's supplemental report, is that the predominant focus was on documenting disparities. Only one of the recent studies, the quality improvement study (Miranda et al., 2003; Wells et al., 2004), actually took steps to reduce disparities. Whereas further refinements in documenting disparities are important, elimination of disparities is the ultimate goal. The quality improvement study gives hope to communities that disparities in mental health care can be directly measured and reduced.

Toward the Reduction and Elimination of Disparities: The Case of Schizophrenia

Given the limited attention to reducing and eliminating disparities in prior Latino mental health research, we now consider potential approaches to doing so. We focus on schizophrenia in part because there is considerable illness burden with this disorder (Murray & Lopez, 1996). Addressing disparities in the care of conditions with high illness burden has the potential to reduce considerable suffering. Also, schizophrenia has received limited attention in disparity research. Drawing attention to schizophrenia could serve to increase interest in this research area. Last, there are a handful of studies that suggest possible directions to reduce disparities for schizophrenia and potentially for other disorders as well. Prior to discussing how to address disparities in mental health care for people with schizophrenia, we summarize the available research that documents disparities associated with schizophrenia.

Disparities in Mental Health Care of Latinos With Schizophrenia

Whereas past disparities research has focused on a range of youth and adult mental health conditions, little attention has been given to the study of schizophrenia. One reason is that epidemiological studies serve as a primary way in which disparities in mental health care have been detected, but they tell us little about the prevalence rates of schizo-

phrenia for Latinos and their use of services. Two of the early psychiatric epidemiologic studies (Canino et al., 1987; Karno et al., 1987) estimated adult lifetime prevalence rates of schizophrenia to be 1.6% for Puerto Rican islanders and 0.4% for Mexican Americans residing in the Los Angeles area. However, subsequent epidemiologic research for the nation as a whole found that cases of schizophrenia (Kendler, Gallagher, Abelson, & Kessler, 1996) were significantly underidentified by lay interviewers. As a result, more recent epidemiologic studies of Latinos residing in the United States (Alegría et al., 2008; Breslau et al., 2007) and in Mexico (Medina-Mora et al., 2003) have not assessed for schizophrenia. The one effort to examine psychotic disorders within the NLAAS (Lewis-Fernández et al., 2009) supports the general observation of underidentifying persons with a psychotic disorder. Only five community respondents out of 2,554 were identified as having a psychotic disorder; no cases of schizophrenia were identified. In contrast to affective, anxiety, and substance-related disorders, there is little epidemiological or community-based research that assesses disparities in mental health care for Latinos with schizophrenia.

A few disparities studies have been conducted with administrative databases from the public mental health system of care. Barrio and colleagues (2003), for instance, examined the use of case management services in a sample of 4,249 patients with a diagnosis of schizophrenia. The ethnicity/race of this sample during fiscal year 1998–1999 included non-Latino Whites (64%), Latinos (20%), and African Americans (17%). These investigators found that ethnic minorities (19% of Latinos and 17% of African Americans) were less likely than non-Latino Whites (30%) to receive case management services. The results also indicated disproportionate underuse of case management services by Spanish-speaking Latinos. These findings demonstrate that ethnic minority status and language moderate the receipt of mental health care for those with schizophrenia. Latinos, especially those who are Spanish-speaking, are markedly underserved compared to non-Latino Whites. (See Horvitz-Lennon, McGuire, Alegría, & Frank, 2009, for an administrative study of persons with schizophrenia receiving services in the state of Florida.)

Studies based on administrative databases provide important information regarding those who have entered a system of care. However, they do not account for those in need of services who do not access mental health services. Consider the finding that Latinos, in particular Spanish-speaking Latinos, make less use of case management services; the magnitude of this disparity may be even greater given that Latinos, especially those of Mexican origin, tend not to make use of mental health care (e.g., Vega et al., 1999). There may be disproportionately more Spanish-speaking Latinos in the community in need of case management services who have yet to enter the mental health system of care.

Although the studies of disparities in the mental health care of Latinos with schizophrenia are limited, available administrative-data-based studies suggest that there are indeed important disparities with this ethnic group. Creative

community-based epidemiologic approaches that integrate both household interviews and administrative databases of local communities (e.g., Koenen et al., 2009) are needed to identify the full range of disparities in the care of schizophrenia.

Toward Reducing Disparities Across Pathways to Mental Health Care

There are a handful of studies that were published after the Surgeon General's supplemental report (U. S. Department of Health and Human Services, 2001) that either directly inform or actually aim to reduce disparities in mental health care for schizophrenia. These studies fit well within Rogler and Cortes's (1993) conceptual framework of pathways to mental health care. According to this framework, pathways refer to the "sequence of contacts with individuals and organizations prompted by the distressed person's efforts, and those of his or her significant others, to seek help as well as the help that is supplied in response to such efforts" (Rogler & Cortes, 1993, p. 555). The pathways to care begin at the moment of distress or illness onset, then move to the social networks that facilitate care, and finally include the pathways within the mental health system itself. Here we examine research within each of these general areas that have direct implications for reducing disparities.

Illness Onset

One approach to reduce disparities in mental health care of Latinos, especially at illness onset, is to address the limited mental health literacy (Jorm, 2000) that may account, in part, for Latinos' low use of services. The Institute of Medicine (2004) defined *literacy* as the extent to which individuals are able to obtain, process, and understand health information and services to make health decisions. Health knowledge and illness attributions are the central literacy constructs addressed by a novel program to enhance the psychosis literacy of Spanish-speaking Latinos. In particular, López, Lara, et al. (2009) developed a psychoeducational program with the aims of increasing people's knowledge of psychosis, specifically delusions, hallucinations, and disordered speech (thought disorder), and increasing their attributions of psychosis-related behavior to serious mental illness. As a first step, these investigators examined whether increases in health knowledge and illness attributions would result in greater referrals to health and mental health professionals given a hypothetical scenario.

Guided by the constructs of health knowledge and illness attributions, López, Lara, et al. (2009) developed and tested a 35-minute psychoeducational Spanish language program. The content of the program was organized around the word *clave*. *Clave* has multiple meanings in the Spanish language, including a musical instrument and a rhythmic pattern underlying some Latino music. The psychoeducational program, called La CLAVE, was organized around an alternative meaning of *clave*—clue or key. The "C" refers to *creencias falsas* (false beliefs or delusions), the "L" stands for *lenguaje desorganizado* (disordered speech or thought disorder), the "A" signifies *alucinacio-*

nes (hallucinations), and the “v” and “e” represent the type of hallucination, *ver cosas que no existen* (see things that do not exist) and *escuchar cosas que no existen* (hear things that do not exist). The program’s main message is to use La CLAVE (the clue) to assess whether others have symptoms of serious mental illness. To illustrate each symptom, popular cultural icons derived from music, visual art, and videos were used. For example, a brief video clip of Cantinflas, a famous Mexican comedian, speaking in his characteristic tangential manner, was used to illustrate disorganized speech. The mnemonic device and the clear presentations and illustrations of the symptoms were some of the ways that were used to enhance health knowledge and illness attributions, and, in turn, to increase referrals to mental health or health professionals.

To evaluate the efficacy of the psychoeducational program, the investigators presented a brief three-minute story of a hypothetical person named Olga who was described as having significant life stressors (divorce), some depressed mood, and psychotic symptoms (delusions and hallucinations). Participants responded to a number of key questions about Olga prior to the training, then they were administered the training, and finally they were presented with the story of Olga again as part of the posttraining assessment. The investigators observed significant increases across the three domains of symptom knowledge, illness attributions, and recommended help seeking. Prior to the psychoeducational program, on average, less than half of the participants identified at least one of the three psychotic symptoms in their definition of serious mental illness ($M = 0.45$ symptoms, $SD = 0.63$). After the training, the community residents significantly increased their identification of symptoms to 1.33 symptoms ($SD = 0.95$). Similar increases were observed for attributions to psychosis (pretraining = 2%; posttraining = 35%) and professional referrals (pretraining = 58%; posttraining = 80%). These findings indicate that the psychoeducational program La CLAVE likely increases psychosis literacy among Spanish-speaking community residents. López and colleagues recently developed a DVD version of La CLAVE to facilitate the dissemination of the literacy program (Casas, López, Andrews, Kopelowicz, & Lara, 2012). Preliminary analyses indicate that the DVD version administered by a community worker is as effective as the in-person presentation in increasing psychosis literacy.

La CLAVE is a conceptually informed psychoeducational tool with a developing empirical base that can help Spanish-speaking Latinos recognize the key symptoms of psychosis in others. The next step is to launch a widespread community educational campaign and assess whether La CLAVE can enhance psychosis literacy throughout targeted communities. The long-term goal of this project is to reduce the time it takes for persons with schizophrenia and other psychotic disorders to obtain care. If achieved, this could have a marked influence on observed disparities in care, especially among Mexican-origin adults.

Families and Illness Course

Rogler and Cortes (1993) referred to the numerous social networks that can facilitate pathways to care. Central to many Latinos is the role families play in the care of those with mental illness (Snowden, 2007). In addition to facilitating access to care, families can serve as a source of support or conflict that is associated with a reduction or increase in the likelihood of relapse. Researchers have found that following hospitalization, ill relatives who return to households in which their key relatives are highly critical or emotionally overinvolved, two family emotional stances referred to as expressed emotion (EE), are more likely to relapse than those who return to households low in EE (Butzlaff & Hooley, 1998). Although both criticism and emotional overinvolvement (EOI) are assessed, criticism largely accounts for the EE-relapse association in most parts of the world, as the majority of caregivers with high global EE have high levels of criticism (Kavanagh, 1992). Significantly fewer caregivers are high in EOI. Moreover, when examining the relationship between the specific EE indices and relapse, criticism is the strongest predictor of relapse (e.g., King & Dixon, 1999). Based on these findings, family interventions have been developed largely to reduce family negativity (Falloon, Boyd, & McGill, 1984; McFarlane et al., 1995). Much less attention has been directed at reducing EOI.

In contrast to past research with the emphasis on criticism, the findings regarding Mexican American families suggest that EOI plays a much greater role in family processes and illness course. First of all, among caregivers with high global EE (63 of 170), high EOI (40%) and criticism/hostility (44%) are nearly equally represented (López, Ramírez García, et al., 2009). This contrasts with most caregiver samples of high global EE as illustrated in one study of non-Latino Whites (high criticism/hostility, 72%; EOI, 8%; Vaughn, Snyder, Jones, Freeman, & Falloon, 1984). Second, in the only two studies of Mexican Americans that examined EOI as a specific index, EOI predicted relapse (Aguilera, López, Breitborde, Kopelowicz, & Zarate, 2010; Breitborde, López, Wickens, Jenkins, & Karno, 2007). These findings are consistent with a related study that found a behavioral interaction pattern that reflects, in part, enmeshment to be related with more relapse (Kopelowicz et al., 2006). Third, of the studies that examined the relationship of the specific index of criticism and relapse, none found a significant association among Mexican American samples (Aguilera et al., 2010; Kopelowicz et al., 2002; López et al., 2004). Together these findings suggest that at the very least, existing behavioral family treatments (Falloon et al., 1984; McFarlane, 2002) when applied with largely immigrant Mexican American families should give more attention to addressing EOI. Given the emphasis on reducing negativity, it is important to develop a treatment module that specifically addresses caregiver’s EOI.

We caution against the development of a Mexican American-specific or Latino-specific family treatment that is applied to families on the basis of their ethnicity. There

is simply too much heterogeneity in any one ethnic group. Making assumptions based on ethnicity that EOI should be addressed in one family and criticism in another family reflects stereotyping. Nevertheless, specific treatment modules should be available to address the diversity of family concerns. One way to avoid the possibility of stereotyping and still match the appropriate modality for a given family is to assess directly the family needs. One other recent advancement in the EE literature is the development of a brief self-report measure to assess EE (Keefe, López, Tiznado, Medina, & Mendoza, 2012). The advantage of this measure over most other self-report measures is that it can be applied to both caregivers and ill relatives, and it assesses each of the key EE indices, criticism, EOI, and warmth. Initial studies report modest to very good psychometric properties of the new Brief Dyadic Scale of Expressed Emotion (BDSEE) with a sample of Mexican American families. For example, the four-item EOI scale for caregivers predicted relapse one year from the initial assessment. (See also Medina-Pradas, Navarro, López, Grau, & Obiols, 2011, who applied an expanded version of the BDSEE to a sample of persons with eating disorders.) This measure shows promise in distinguishing between those family caregivers high in criticism and those high in EOI.

These findings suggest an alternative model to cultural adaptation of existing evidence-based treatments for given ethnocultural groups. Bernal, Jimenez-Chafey, and Domech-Rodriguez (2009) defined *cultural adaptation* as “the systematic modification of an evidence-based treatment or intervention protocol to consider language, culture, and context in such a way that it is compatible with the client’s cultural patterns, meanings, and values” (p. 362). Oftentimes these adaptations are based on specific ethnocultural groups, largely overlooking the considerable within-group cultural heterogeneity and giving little voice to the individual patient or family. The alternative approach to cultural adaptation suggested by the EE research first requires identifying the cultural variability associated with the *mechanism of action* underlying the focus of treatment, in this case, relapse. Here we observe that family EOI is a better predictor of relapse for Mexican Americans than is family criticism. Clinical researchers then have an empirical basis for developing an alternative treatment module, one that addresses EOI. It is important that a measure is available to determine which module—the one that addresses EOI or the one that addresses criticism—is appropriate for the individual family. This model of cultural adaptation avoids the risk of applying cultural stereotypes based on the distal variable of patient’s ethnicity. Instead of ethnicity, clinicians can assess the specific mechanism that is most applicable to a given family and then apply the appropriate treatment module.

The main finding of recent EE studies with Mexican Americans is that EOI plays a much more prominent role in families’ emotional stance and ill relatives’ illness course than the general EE literature has indicated. With regard to taking deliberate steps to reduce disparities, it is important

that evidence-based family interventions strengthen their attention to EOI.

Family Interventions

The third pathway to mental health care takes place within the mental health facility itself, from intake to treatment to discharge. There are many aspects of mental health services that can reflect disparities, including diagnosis (Gara et al., 2012), filling of prescriptions (Gilmer et al., 2009), and quality of care (Young, Klap, Sherbourne, & Wells, 2001). In this section of the article, we focus on research that seeks to improve the quality of treatment of schizophrenia for Spanish-speaking Latinos. Given the importance of families for many Latinos, we take a close look at an individually based intervention that includes family members and a family-based treatment. Although there are other innovative approaches to the development of family treatments for Latinos with schizophrenia (e.g., Barrio & Yamada, 2010; Weisman, Duarte, Koneru, & Wasserman, 2006), we have chosen to examine two treatment studies in which the interventions were culturally adapted and the outcome data show considerable promise.

In the first treatment study, Kopelowicz, Zarate, Gonzalez Smith, Mintz, and Liberman (2003) applied an illness management program for Spanish-speaking Mexican American patients in Los Angeles. This program, which incorporated the Medication Management and Symptom Management modules of the University of California, Los Angeles Social and Independent Living Skills (SILS) series, included a trainer’s manual, a patient workbook, and a demonstration videocassette. The English-language version of the program has been shown to improve the knowledge and skills of patients with schizophrenia in terms of the symptoms of their illness and the importance of medications to treat the illness (Liberman et al., 1993). Moreover, this program has been documented in randomized controlled clinical trials to decrease symptoms and diminish relapse rates (e.g., Marder, Wirshing, Mintz, & McKenzie, 1996).

The cultural adaptation of this program for Mexican Americans included translating the trainer’s manual and patient workbook and dubbing the videos into Spanish. The in-session trainers’ activities were also modified. For example, the active-directive teaching style that is the sine qua non of social skills training was modified to allow for more spontaneity on the part of the patients. Because many patients do not respond to direct questions with direct answers, trainers were instructed to “stick with the patient” longer than in conventional training sessions.

The most relevant cultural modification was incorporating family members into the skills training process as “generalization aides.” Most Latinos with schizophrenia live with their families (Snowden, 2007); therefore, including families was relevant to the task of maximizing the generalization of skills to the home environment. This was accomplished in two ways. Family members attended 13 group sessions (once a week in the evenings) in which they were educated about their roles as collaborating participants in the treatment process. The aim of these “general-

ization sessions” was to facilitate family members’ offering opportunities, encouragement, and reinforcement to their mentally ill relatives for applying the skills in everyday life. After completing these sessions, skills trainers visited patients and families at their homes to review progress and to help solve problems that arose.

Kopelowicz et al. (2003) evaluated the acquisition and generalization effects of this program. A total of 94 persons with schizophrenia who were of Latino origin and who were receiving services at a community mental health center in Los Angeles were randomly assigned to skills training and customary outpatient care versus customary care alone. An illness self-management skill training using the SILS modules was conducted in Spanish for 13 weeks, four days per week, one hour per day. Participants’ skill level and skill utilization, symptoms, level of functioning, and quality of life were assessed at baseline, following the training, and six months after the training was completed. Immediately after the training and at the six-month follow-up, the experimental group demonstrated significantly higher levels of skill acquisition and generalization and significantly fewer symptoms and rehospitalizations than the control group. Individuals in the experimental group also showed significant increases in the use of illness management skills in their natural environments. The results highlighted the value of incorporating a generalization strategy based on family participation in a skills training program.

In a second treatment outcome study, Kopelowicz and colleagues (2012) expanded the role of families in treatment by evaluating a family-based intervention designed to promote treatment adherence among Latinos with schizophrenia. As in the prior study, Kopelowicz et al. carried out a cultural adaptation of this treatment as well. Ajzen’s (1991) theory of planned behavior was used to guide the cultural adaptation because of its emphasis on subjective norms and perceived behavior control, two constructs that are highly germane to the study population and to the proposed intervention. The resultant intervention, Multi-Family Group-Adherence (MFG-A), is an adherence-focused variant of standard MFG (McFarlane, 2002). Standard MFG consists of three components: three initial “joining” sessions conducted with each of the families separately; a one-day (six-hour) multifamily “Survival Skills” educational workshop; and ongoing multifamily group sessions that focus on problem solving. In MFG-A, the joining sessions and the Survival Skills workshop were carried out in the same manner as in the standard MFG. In addition, problem-solving methods served as the main treatment platform for both interventions. The two main differences between the MFG-A and the standard MFG were that the MFG-A (a) was explicitly organized around the key principles of the theory of planned behavior and (b) focused on adherence to medication regimens. The standard MFG does not incorporate principles of the theory of planned behavior and addresses a wide range of problems, including, but not limited to, medication adherence.

To test the hypothesis that the modified MFG-A would lead to more positive outcomes, 174 Mexican Amer-

ican patients with schizophrenia and their families were randomly assigned to either (a) one year of the standard MFG added to ongoing customary outpatient care; (b) one year of the adapted multifamily groups added to ongoing customary outpatient care; or (c) treatment as usual only (TAU; monthly pharmacotherapy sessions and additional services as clinically needed). Evaluations were made of patients and their key relative at baseline and every four months for the first year with follow-up evaluations at 18 months and 24 months. The patients were selected as having previously been noncompliant ($M = 6.5$ previous hospitalizations) and were primarily men who were either unemployed or on disability with an average age of 31.5 years. The main outcome variable was rehospitalization.

The primary finding is that patients assigned to the MFG-A group were significantly less likely to be hospitalized than patients in either of the two other conditions (MFG-A, 39%; standard MFG, 66%; TAU, 70%). Moreover, patients in the MFG-A condition demonstrated better adherence to their antipsychotic medication than patients in the other two groups. Finally, path analysis indicated that treatment effects on rehospitalization were mediated by medication adherence. These results suggest that directly targeting the factors that affect adherence to medication treatment for Latinos with schizophrenia by using a culturally adapted family intervention can lead to improved treatment outcomes.

The most important point from these studies is that the evidence supports the use of both treatments for Spanish-speaking Latinos—the social skills training with a family generalization aide and a culturally adapted multifamily group intervention. Current guidelines that define evidence-based treatments (Chambless & Hollon, 1998) would identify them as probably efficacious, in that a randomized clinical trial with an active treatment control condition was conducted and a proper research protocol was followed. Although not a criterion for evidence-based care, the fact that the specific mechanisms targeted by the treatment adaptations were shown to mediate the outcomes provides additional support for these interventions. In addition, both treatments prior to their cultural adaptation have strong empirical support.

The latter study also has implications for cultural adaptation of treatments. Similar to what was suggested by the EE research, Kopelowicz and colleagues (2012) focused on the mechanisms thought to underlie treatment adherence, namely, patient attitudes, subjective norms, and perceived behavioral control. In addition, prior to the intervention, individual assessments were carried out of the specific barriers to treatment adherence that each patient and family encountered. The MFG sessions then focused on one of these obstacles to treatment adherence, and the group discussion was designed to elicit ideas for overcoming these barriers using the problem-solving method. For example, if a patient reported that one of his family members did not approve of his taking antipsychotic medication, the intervention was focused on correcting any inaccurate beliefs about others’ opinions—family members were present during the interventions—and on trying to

change his or her opinion if the family member truly was not in favor of medication adherence. The focus on mechanisms of action that likely vary by sociocultural context and the individual assessment of each patient and family is consistent with the alternative model of cultural adaptation noted in the prior section on EE.

On the basis of this research, we envision two future directions. One is to carry out a second independent outcome study that with positive findings could then define the interventions as well-established evidence-based treatments (Chambless & Hollon, 1998). The second direction is to begin disseminating the treatments to community mental health care for Spanish-speaking adults with schizophrenia. Oftentimes researchers and policymakers lament the lack of evidence-based care for ethnic minority group members (Huey & Polo, 2008). With these two treatments we have evidence to support their use with Spanish-speaking Latinos. For those who take a more conservative approach and may want a second independent study before pursuing dissemination, a second treatment study could be embedded within a dissemination study. In any case, we believe that the science is sufficiently strong to disseminate and implement.

Synchronous Interventions Across Pathways to Care

The research on schizophrenia points out new and future developments in interventions that aim to reduce disparities in mental health care of Latinos across multiple pathways to care. Although our focus is on schizophrenia, interventions at the different pathways of care could apply to other disorders as well. For example, Yeh and colleagues (2005) found that parental attributions for youth behavior problems play an important role in whether the parents seek mental health care for their children. Community education could address the timely recognition of mental health problems of youth as well.

To maximize the impact of interventions on reducing disparities, we recommend that the interventions be implemented in a synchronous fashion across pathways to care. For example, La CLAVE could be administered throughout a given community to address the first pathway to care, illness recognition. Doing so could help residents promptly identify the disorder and facilitate their seeking care. La CLAVE could also target the second pathway to care, the social networks, by educating a wide range of referral sources as to what the signs and symptoms of psychosis are. Given that primary care health professionals are a valuable resource in referring and even treating persons with schizophrenia, one could draw from the quality improvement model (Wells et al., 2000) and integrate evidenced-based psychopharmacological interventions and psychosocial interventions for schizophrenia, especially for the more stabilized patients. Family support groups could also be integrated within this system of care, such as Family to Family (Burland, 1998), where knowledge of family processes could inform possible adaptations. For the last pathway to care, the mental health facility itself, staff

could be trained in the social skills training with the family generalization aide or the noted multifamily intervention.

Implementing multiple interventions to address multiple pathways to care has the potential to create synergistic effects that are only partially revealed in single interventions that target one pathway. For instance, with the early recognition of the disorder facilitated by a community education program, persons with schizophrenia are likely to enter into care before they significantly decompensate. Then with effective interventions, such as the multifamily group treatment, individuals are likely to recover, thus reducing the disruptions in their lives and the burden on the family. The positive treatment outcomes can then potentially increase the likelihood that, if needed in the future, treatment will once again be sought early. One can imagine a number of other synergistic effects with regard to family burden, stigma, treatment costs, improved working alliances between professionals and patients, and many other domains. Although implementing interventions at various levels synchronously may be challenging, it is likely that the benefits are greater than the sum of the effects that the same interventions offer when administered independently.

Uncharted Research Areas

In addition to building on existing research across the different pathways to care for schizophrenia, there are directions in the general mental health literature that have significant promise for reducing the disability burden of serious mental illness among Latinos. Given the considerable health problems of persons with serious mental illness (Marder et al., 2004) and given health care reform to integrate physical and mental health care (Druss & Mauer, 2010), it is critical that we examine the health of Latinos with serious mental disorders and how best to integrate health and mental health care. Katon and colleagues (2010) recently demonstrated that coordinated care improved both the physical health and the mental health of patients with depression and poorly controlled diabetes, coronary heart disease, or both health conditions. Second, we have little data regarding the dual diagnosis of Latinos with serious mental disorders and substance (drug or alcohol) disorders. The high rate of co-occurring disorders in non-Latino samples of persons with serious mental illness (Mueser et al., 2000) and the higher rates of dual diagnosis of substance disorders and mood and anxiety disorders among U.S.-born Latinos than among Latino immigrants (Vega, Canino, Cao, & Alegría, 2009) suggest that Latinos with serious mental illness and substance disorders comprise an important segment of the clinical population. The third uncharted research area relates to the placement of many persons with serious mental illness in jails and prisons (Steadman, Osher, Robbins, Case, & Samuels, 2009). Often the mental health treatment for those in prison is limited (e.g., juvenile detainees, Teplin, Abram, McClelland, Washburn, & Pikus, 2005). We know little about how Latinos with serious mental disorders are faring in our jails today and how best to bring treatment to those in need, especially those who are monolingual Spanish-speaking. Finally, to confront the challenges in serving these hard-to-reach groups, future

mental health care will need to draw increasingly on the use of information technology, such as the Internet, video games, text messaging, and other technology (Aguilera & Muñoz, 2011; Ritterband et al., 2003). Given the limited number of Spanish-speaking professionals, creative approaches in using technology to reach persons with serious mental disorders and their caregivers are very much needed (see Rotondi et al., 2007).

Conclusion

In all, the U.S. Surgeon General's supplemental report (U.S. Department of Health and Human Services, 2001) brought much-needed national attention to addressing disparities in mental health care for underserved ethnic and racial minority groups. The developments since the report's publication with regard to Latinos are encouraging not only in terms of documenting and understanding disparities but also in generating hope that disparities can be reduced. Surgeon General David Satcher demonstrated considerable courage in bringing to our nation's attention the vital importance of quality mental health services for all Americans. A similar level of courage is needed by stakeholders today to translate the hope of selected research and interventions into the actual reduction and elimination of mental health disparities.

REFERENCES

- Abe-Kim, J., Takeuchi, D. T., Hong, S., Zane, N., Sue, S., Spencer, M. S., . . . Alegria, M. (2007). Use of mental health-related services among immigrant and US-born Asian Americans: Results from the National Latino and Asian American Study. *American Journal of Public Health, 97*, 91–98. doi:10.2105/AJPH.2006.098541
- Aguilera, A., López, S. R., Breitborde, N. J. K., Kopelowicz, A., & Zarate, R. (2010). Expressed emotion, sociocultural context and the course of schizophrenia. *Journal of Abnormal Psychology, 119*, 875–885. doi:10.1037/a0020908
- Aguilera, A., & Muñoz, R. F. (2011). Text messaging as an adjunct to CBT in low-income populations: A usability and feasibility pilot study. *Professional Psychology: Research and Practice, 42*, 472–478. doi:10.1037/a0025499
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179–211. doi:10.1016/0749-5978(91)90020-T
- Alegria, M., Canino, G., Shrout, P. E., Woo, M., Duan, N., Vila, D., . . . Meng, X.-L. (2008). Prevalence of mental illness in immigrant and non-immigrant U.S. Latino groups. *American Journal of Psychiatry, 165*, 359–369. doi:10.1176/appi.ajp.2007.07040704
- Alegria, M., Mulvaney-Day, N., Torres, M., Polo, A., Cao, Z., & Canino, G. (2007). Prevalence of psychiatric disorders across Latino subgroups in the United States. *American Journal of Public Health, 97*, 68–75. doi:10.2105/AJPH.2006.087205
- Alegria, M., Mulvaney-Day, N., Woo, M., Torres, M., Gao, S., & Oddo, V. (2007). Correlates of past-year mental health service use among Latinos: Results from the National Latino and Asian American Study. *American Journal of Public Health, 97*, 76–83. doi:10.2105/AJPH.2006.087197
- Alegria, M., Vila, D., Woo, M., Canino, G., Takeuchi, D., Vera, M., . . . Shrout, P. (2004). Cultural relevance and equivalence in the NLAAS instrument: Integrating etic and emic in the development of cross-cultural measures for a psychiatric epidemiology and services study of Latinos. *International Journal of Methods in Psychiatric Research, 13*, 270–288. doi:10.1002/mpr.181
- Arias, E. (2010). United States life tables by Hispanic origin. National Center for Health Statistics. *Vital and Health Statistics, Series 2*(152), 1–33. Retrieved from http://www.cdc.gov/nchs/data/series/sr_02/sr02_152.pdf
- Barrio, C., & Yamada, A. M. (2010). Culturally based intervention development: The case of Latino families dealing with schizophrenia. *Research on Social Work Practice, 20*, 483–492. doi:10.1177/1049731510361613
- Barrio, C., Yamada, A. M., Hough, R. L., Hawthorne, W., Garcia, P., & Jeste, D. V. (2003). Ethnic disparities in use of public mental health case management services among patients with schizophrenia. *Psychiatric Services, 54*, 1264–1270. doi:10.1176/appi.ps.54.9.1264
- Bernal, G., Jimenez-Chafey, M. I., & Domenech-Rodriguez, M. M. (2009). Cultural adaptation of treatments: A resource for considering culture in evidence-based practice. *Professional Psychology: Research and Practice, 40*, 361–368. doi:10.1037/a0016401
- Bird, H. R., Canino, G. J., Davies, M., Duarte, C. S., Febo, V., Ramirez, R., . . . Loeber, R. (2006). A study of disruptive behavior disorders in Puerto Rican youth: I. Background, design and survey methods. *Journal of the American Academy of Child & Adolescent Psychiatry, 45*, 1032–1041. doi:10.1097/01.chi.0000227878.58027.3d
- Bird, H. R., Shrout, P. E., Davies, M., Canino, G., Duarte, C. S., Shen, S., & Loeber, R. (2007). Longitudinal development of antisocial behaviors in young and early adolescent Puerto Rican children at two sites. *Journal of the American Academy of Child & Adolescent Psychiatry, 46*, 5–14. doi:10.1097/01.chi.0000242243.23044.ac
- Breitborde, N. J. K., López, S. R., Wickens, T. D., Jenkins, J. H., & Karno, M. (2007). Toward specifying the nature of the relationship between expressed emotion and schizophrenic relapse: The utility of curvilinear models. *International Journal of Methods in Psychiatric Research, 16*, 1–10. doi:10.1002/mpr.194
- Breslau, J., Aguilar-Gaxiola, S., Borges, G., Kendler, K. S., Su, M., & Kessler, R. C. (2007). Risk for psychiatric disorder among immigrants and their US-born descendants: Evidence from the National Comorbidity Survey Replication. *Journal of Nervous and Mental Disease, 195*, 189–195. doi:10.1097/01.nmd.0000243779.35541.c6
- Burland, J. (1998). Family-to-family: A trauma-and-recovery model of family education. *New Directions in Mental Health Services, 1998*(77), 33–41. doi:10.1002/yd.23319987705
- Butzlaff, R. L., & Hooley, J. M. (1998). Expressed emotion and psychiatric relapse. *Archives of General Psychiatry, 55*, 547–552. doi:10.1001/archpsyc.55.6.547
- Canino, G. J., Bird, H. R., Shrout, P. E., Rubio-Stipec, M., Bravo, M., Martinez, R., . . . Guevara, L. M. (1987). The prevalence of specific psychiatric disorders in Puerto Rico. *Archives of General Psychiatry, 44*, 727–735. doi:10.1001/archpsyc.1987.01800200053008
- Canino, G., Shrout, P. E., Rubio-Stipec, M., Bird, H. R., Bravo, M., Ramirez, R., . . . Martínez-Taboas, A. (2004). The DSM-IV rates of child and adolescent disorders in Puerto Rico: Prevalence, correlates, service use, and the effects of impairment. *Archives of General Psychiatry, 61*, 85–93. doi:10.1001/archpsyc.61.1.85
- Casas, R., López, S. R., Andrews, L., Kopelowicz, A., & Lara, M. d. C. (2012). *Towards the dissemination of La CLAVE: A video adaptation of a psychosis literacy program for Spanish-speakers*. Manuscript submitted for publication.
- Chambless, D. L., & Hollon, S. D. (1998). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology, 66*, 7–18. doi:10.1037/0022-006X.66.1.7
- Cook, B. L., McGuire, T., & Miranda, J. (2007). Measuring trends in mental health care disparities, 2000–2004. *Psychiatric Services, 58*, 1533–1540. doi:10.1176/appi.ps.58.12.1533
- Druss, B. G., & Mauer, B. J. (2010). Health care reform and care at the behavioral health–primary care interface. *Psychiatric Services, 61*, 1087–1092. doi:10.1176/appi.ps.61.11.1087
- Duarte, C. S., Bird, H. R., Shrout, P. E., Ping, W., Lewis-Fernández, R., Shen, S., . . . Canino, G. (2008). Culture and psychiatric symptoms in Puerto Rican children: Longitudinal results from one ethnic group in two contexts. *Journal of Child Psychology and Psychiatry, 49*, 563–572. doi:10.1111/j.1469-7610.2007.01863.x
- Ennis, S. R., Rios-Vargas, M., & Albert, N. G. (2011). *The Hispanic population: 2010* (2010 Census Briefs C2010BR-04). Washington, DC: U.S. Census Bureau. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf>

- Falloon, I., Boyd, J., & McGill, C. (1984). *Family care of schizophrenia*. New York, NY: Guilford Press.
- Gara, M. A., Vega, W. A., Arndt, S., Escamilla, M., Fleck, D. E., Lawson, W. B., . . . Strakowski, S. M. (2012). Influence of patient race and ethnicity on clinical assessment in patients with affective disorders. *Archives of General Psychiatry, 69*, 593–600. doi:10.1001/archgenpsychiatry.2011.2040
- Gil, A. G., & Vega, W. A. (1996). Two different worlds: Acculturation stress and adaptation among Cuban and Nicaraguan families in Miami. *Journal of Social and Personal Relations, 13*, 435–456. doi:10.1177/0265407596133008
- Gilmer, T. P., Ojeda, V. D., Barrio, C., Fuentes, D., Garcia, P., Lanouette, N. M., & Lee, K. C. (2009). Adherence to antipsychotics among Latinos and Asians with schizophrenia and limited English proficiency. *Psychiatric Services, 60*, 175–182. doi:10.1176/appi.ps.60.2.175
- González, H. M., Wassim, T., Whitfield, K. E., & Vega, W. A. (2010). The epidemiology of major depression and ethnicity in the United States. *Journal of Psychiatric Research, 44*, 1043–1051. doi:10.1016/j.jpsychires.2010.03.017
- Grant, B. F., Stinson, F. S., Hasin, D. S., Dawson, D. A., Chou, S. P., & Anderson, K. (2004). Immigration and lifetime prevalence of DSM-IV psychiatric disorders among Mexican Americans and non-Hispanic Whites in the United States: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Archives of General Psychiatry, 61*, 1226–1233. doi:10.1001/archpsyc.61.12.1226
- Horvitz-Lennon, M., McGuire, T. G., Alegría, M., & Frank, R. G. (2009). Racial and ethnic disparities in the treatment of a Medicaid population with schizophrenia. *Health Services Research, 44*, 2106–2122. doi:10.1111/j.1475-6773.2009.01041.x
- Huey, S. J., & Polo, A. J. (2008). Evidence-based psychosocial treatments for ethnic minority youth. *Journal of Clinical Child and Adolescent Psychology, 37*, 262–301. doi:10.1080/15374410701820174
- Humes, K. R., Jones, N. A., & Ramirez, R. (2011). *Overview of race and Hispanic origin: 2010* (C2010BR-02). Washington, DC: U.S. Census Bureau. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf>
- Institute of Medicine. (2003). *Unequal treatment: Confronting racial and ethnic disparities in health care*. Washington, DC: National Academies Press.
- Institute of Medicine. (2004). *Health literacy: A prescription to end confusion*. Washington, DC: National Academies Press.
- Jackson, J. S., Torres, M., Caldwell, C. H., Neighbors, H. W., Nesse, R. M., Taylor, R. J., . . . Williams, D. R. (2004). The National Survey of American Life: A study of racial, ethnic and cultural influences on mental disorders and mental health. *International Journal of Methods in Psychiatric Research, 13*, 196–207. doi:10.1002/mpr.177
- Jorm, A. F. (2000). Mental health literacy: Public knowledge and beliefs about mental disorders. *British Journal of Psychiatry, 177*, 396–401.
- Karno, M., Hough, R. L., Burnam, M. A., Escobar, J. I., Timbers, D. M., Santana, F., & Boyd, J. H. (1987). Lifetime prevalence of specific psychiatric disorders among Mexican Americans and non-Hispanic Whites in Los Angeles. *Archives of General Psychiatry, 44*, 695–701. doi:10.1001/archpsyc.1987.01800200021004
- Kataoka, S. H., Zhang, L., & Wells, K. B. (2002). Unmet need for mental health care among U.S. children: Variation by ethnicity and insurance status. *American Journal of Psychiatry, 159*, 1548–1555. doi:10.1176/appi.ajp.159.9.1548
- Katon, W. J., Lin, E. H., Von Korff, M., Ciechanowski, P., Ludman, E., Young, B., . . . McCulloch, D. (2010). Collaborative care for patients with depression and chronic illnesses. *The New England Journal of Medicine, 363*, 2611–2620. doi:10.1056/NEJMoa1003955
- Kavanagh, D. J. (1992). Recent developments in expressed emotion and schizophrenia. *British Journal of Psychiatry, 160*, 601–620. doi:10.1192/bjp.160.5.601
- Keefe, J. P., López, S. R., Tiznado, D., Medina, C., & Mendoza, E. (2012). *Towards a dyadic view of expressed emotion*. Manuscript submitted for publication.
- Kendler, K. S., Gallagher, T. J., Abelson, J. M., & Kessler, R. C. (1996). Lifetime prevalence, demographic risk factors, and diagnostic validity of nonaffective psychosis as assessed in a US community sample. *Archives of General Psychiatry, 53*, 1022–1031. doi:10.1001/archpsyc.1996.01830110060007
- Kessler, R. C., Berglund, P., Chiu, W. T., Demier, O., Heeringa, S., Hiripi, E., . . . Zheng, H. (2004). The US National Comorbidity Survey Replication (NCS-R): Design and field procedures. *International Journal of Methods in Psychiatric Research, 13*, 69–92. doi:10.1002/mpr.167
- Kessler, R. C., Zhao, S., Katz, S. J., Kouzis, A. C., Frank, R. G., Edlund, M., & Leaf, P. (1999). Past-year use of outpatient services for psychiatric problems in the National Comorbidity Survey. *American Journal of Psychiatry, 156*, 115–123.
- King, S., & Dixon, M. J. (1999). Expressed emotion and relapse in youth schizophrenia outpatients. *Schizophrenia Bulletin, 25*, 377–386. doi:10.1093/oxfordjournals.schbul.a033385
- Koenen, K. C., Moffitt, T. E., Roberts, A. L., Martin, L. T., Kubzansky, L., Harrington, H., . . . Caspi, A. (2009). Childhood IQ and adult mental disorders: A test of the cognitive reserve hypothesis. *American Journal of Psychiatry, 166*, 50–57. doi:10.1176/appi.ajp.2008.08030343
- Kopelowicz, A., López, S. R., Zarate, R., O'Brien, M., Gordon, J., Chang, C., & Gonzalez-Smith, V. (2006). Expressed emotion and family interactions in Mexican Americans with schizophrenia. *Journal of Nervous and Mental Disease, 194*, 330–334. doi:10.1097/01.nmd.0000217880.36581.6b
- Kopelowicz, A., Zarate, R., Gonzalez, V., López, S. R., Ortega, P., Obregon, N., & Mintz, J. (2002). Evaluation of expressed emotion in schizophrenia: A comparison of Caucasians and Mexican Americans. *Schizophrenia Research, 55*, 179–186. doi:10.1016/S0920-9964(01)00193-1
- Kopelowicz, A., Zarate, R., Gonzalez Smith, V., Mintz, J., & Liberman, R. P. (2003). Disease management in Latinos with schizophrenia: A family-assisted, skills training approach. *Schizophrenia Bulletin, 29*, 211–227. doi:10.1093/oxfordjournals.schbul.a006999
- Kopelowicz, A., Zarate, R., Wallace, C., López, S. R., Liberman, R., & Mintz, J. (2012). The impact of multifamily groups to improve treatment adherence in Mexican Americans with schizophrenia. *Archives of General Psychiatry, 69*, 265–273. doi:10.1001/archgenpsychiatry.2011.135
- Lewis-Fernández, R., Horvitz-Lennon, M., Blanco, C., Guarnaccia, P. J., Cao, Z., & Alegría, M. (2009). Significance of endorsement of psychotic symptoms by US Latinos. *Journal of Nervous and Mental Disease, 197*, 337–347. doi:10.1097/NMD.0b013e3181a2087e
- Liberman, R. P., Wallace, C. J., Blackwell, G. A., Eckman, T. A., Vaccaro, J. V., & Kuehnel, T. G. (1993). Innovations in skills training for the seriously mentally ill: The UCLA Social and Independent Living Skills Modules. *Innovations and Research, 2*, 43–59.
- López, S. R., Lara, M. d. C., Kopelowicz, A., Solano, S., Focerrada, H., & Aguilera, A. (2009). La CLAVE to increase psychosis literacy of Spanish-speaking community residents and family caregivers. *Journal of Consulting and Clinical Psychology, 77*, 763–774. doi:10.1037/a0016031
- López, S. R., Nelson Hipke, K., Polo, A. J., Jenkins, J. H., Karno, M., Vaughn, C., & Snyder, K. S. (2004). Ethnicity, expressed emotion, attributions, and course of schizophrenia: Family warmth matters. *Journal of Abnormal Psychology, 113*, 428–439. doi:10.1037/0021-843X.113.3.428
- López, S. R., Ramírez García, J. I., Ullman, J. B., Kopelowicz, A., Jenkins, J., Breitborde, N. J. K., & Placencia, P. (2009). Cultural variability in the manifestation of expressed emotion. *Family Process, 48*, 179–194. doi:10.1111/j.1545-5300.2009.01276.x
- Marder, S. R., Essock, S. M., Miller, A. L., Buchanan, R. W., Casey, D. E., Davis, J. M., . . . Shon, S. (2004). Physical health monitoring of patients with schizophrenia. *American Journal of Psychiatry, 161*, 1334–1349. doi:10.1176/appi.ajp.161.8.1334
- Marder, S. R., Wirshing, W. C., Mintz, J., & McKenzie, J. (1996). Two-year outcome of social skills training and group psychotherapy for outpatients with schizophrenia. *American Journal of Psychiatry, 153*, 1585–1592.
- McFarlane, W. (2002). *The multiple family group*. New York, NY: Guilford Press.
- McFarlane, W. R., Lukens, E., Link, B., Dushay, R., Deakins, S. A., Newmark, M., . . . Toran, J. (1995). Multiple-family groups and general psychoeducation in the treatment of schizophrenia. *Archives of General Psychiatry, 52*, 679–687. doi:10.1001/archpsyc.1995.03950200069016
- Medina-Mora, M. E., Borges, G., Muñoz, C. L., Benjet, C., Jaimés, J. B., Bautista, C. F., . . . Aguilar-Gaxiola, S. (2003). Prevalencia de trastor-

- nos mentales y uso de servicios: Resultados de la encuesta nacional de epidemiología psiquiátrica en México. *Salud Mental*, 26, 1–16.
- Medina-Pradas, C., Navarro, J. B., López, S. R., Grau, A., & Obiols, J. E. (2011). Further development of a scale of perceived expressed emotion and its evaluation in a sample of patients with eating disorders. *Psychiatry Research*, 190, 291–296. doi:10.1016/j.psychres.2011.06.011
- Miranda, J., Duan, N., Sherbourne, C., Schoenbaum, M., Lagomasino, I., Jackson-Triche, M., & Wells, K. B. (2003). Improving care for minorities: Can quality improvement interventions improve care and outcomes for depressed minorities? Results of a randomized, controlled trial. *Health Services Research*, 38, 613–630. doi:10.1111/1475-6773.00136
- Mueser, K. T., Yarnold, P. R., Rosenberg, S. D., Swett, C., Jr., Miles, K. M., & Hill, D. (2000). Substance use disorder in hospitalized severely mentally ill psychiatric patients: Prevalence, correlates and subgroups. *Schizophrenia Bulletin*, 26, 179–192. doi:10.1093/oxfordjournals.schbul.a033438
- Murray, C. J. L., & Lopez, A. D. (Eds.). (1996). *Global burden of disease*. Cambridge, MA: Harvard University Press.
- National Council of La Raza. (2011). *Toward a more vibrant and youthful nation: Latino children in the 2010 Census*. Retrieved from http://issuu.com/nclr/docs/latino_children_in_the_2010_census
- Ritterband, L. M., Gonder-Frederick, L. A., Cox, D. J., Clifton, A. D., West, R. W., & Borowitz, S. M. (2003). Internet interventions: In review, in use, and into the future. *Professional Psychology: Research and Practice*, 34, 527–534. doi:10.1037/0735-7028.34.5.527
- Rogler, L. H., & Cortes, D. E. (1993). Help-seeking pathways: A unifying concept in mental health care. *American Journal of Psychiatry*, 150, 554–561.
- Rotondi, A. J., Sinkule, J., Haas, G. L., Spring, M. B., Litschge, C. M., Newhill, C. E., . . . Anderson, C. M. (2007). Designing websites for persons with cognitive deficits: Design and usability of a psychoeducational intervention for persons with severe mental illness. *Psychological Services*, 4, 202–224. doi:10.1037/1541-1559.4.3.202
- Snowden, L. R. (2007). Explaining mental health treatment disparities: Ethnic and cultural differences in family involvement. *Culture, Medicine and Psychiatry*, 31, 389–402. doi:10.1007/s11013-007-9057-z
- Snowden, L. R. (2012). Health and mental health policies' role in better understanding and closing African American–White American disparities in treatment access and quality of care. *American Psychologist*, 67, 524–531. doi:10.1037/a0030054
- Steadman, H. J., Osher, F. C., Robbins, P. C., Case, B., & Samuels, S. (2009). Prevalence of serious mental illness among jail inmates. *Psychiatric Services*, 60, 761–765. doi:10.1176/appi.ps.60.6.761
- Sue, S., Cheng, J. K. Y., Saad, C. S., & Chu, J. P. (2012). Asian American mental health: A call to action. *American Psychologist*, 67, 532–544. doi:10.1037/a0028900
- Teplin, L. A., Abram, K. M., McClelland, G. M., Washburn, J. J., & Pikus, A. K. (2005). Detecting mental disorder in juvenile detainees: Who receives services. *American Journal of Public Health*, 95, 1773–1780. doi:10.2105/AJPH.2005.067819
- U.S. Department of Health and Human Services. (2001). *Mental health: Culture, race, and ethnicity—A supplement to Mental Health: A Report of the Surgeon General*. Rockville, MD: Author. Retrieved from <http://www.surgeongeneral.gov/library/reports/>
- Vaughn, C. E., Snyder, K. S., Jones, S., Freeman, W. B., & Falloon, I. R. H. (1984). Family factors in schizophrenic relapse: Replication in California of British research on expressed emotion. *Archives of General Psychiatry*, 41, 1169–1177. doi:10.1001/archpsyc.1984.01790230055009
- Vega, W. A., Canino, G., Cao, Z., & Alegría, M. (2009). Prevalence and correlates of dual diagnoses in U.S. Latinos. *Drug and Alcohol Dependence*, 100, 32–38. doi:10.1016/j.drugalcdep.2008.08.018
- Vega, W. A., Kolody, B., Aguilar-Gaxiola, S., Alderete, E., Catalano, R., & Caraveo-Anduago, J. (1998). Lifetime prevalence of DSM-III-R psychiatric disorders among urban and rural Mexican Americans in California. *Archives of General Psychiatry*, 55, 771–778. doi:10.1001/archpsyc.55.9.771
- Vega, W. A., Kolody, B., Aguilar-Gaxiola, S., & Catalano, R. (1999). Gaps in services utilization by Mexican Americans with mental health problems. *American Journal of Psychiatry*, 156, 928–934.
- Weisman, A., Duarte, E., Koneru, V., & Wasserman, S. (2006). The development of a culturally informed, family-focused treatment for schizophrenia. *Family Process*, 45, 171–186. doi:10.1111/j.1545-5300.2006.00089.x
- Wells, K. B., Sherbourne, C., Schoenbaum, M., Duan, N., Meredith, L., Unützer, J., . . . Rubenstein, L. V. (2000). Impact of disseminating quality improvement programs for depression in managed primary care: A randomized control trial. *JAMA: Journal of the American Medical Association*, 283, 212–220. doi:10.1001/jama.283.2.212
- Wells, K., Sherbourne, C., Schoenbaum, M., Ettner, S., Duan, N., Miranda, J., . . . Rubenstein, L. (2004). Five-year impact of Quality Improvement for depression: Results of a group-level randomized controlled trial. *Archives of General Psychiatry*, 61, 378–386. doi:10.1001/archpsyc.61.4.378
- Wu, P., Bird, H. R., Liu, X., Duarte, C. S., Fuller, C., Fan, B., . . . Canino, G. J. (2010). Trauma, posttraumatic stress symptoms, and alcohol-use initiation in children. *Journal of Studies on Alcohol and Drugs*, 71, 326–334.
- Yeh, M., McCabe, K., Hough, R. L., Lau, A., Fakhry, F., & Garland, A. (2005). Why bother with beliefs? Examining relationships between race/ethnicity, parental beliefs about causes of child problems, and mental health service use. *Journal of Consulting and Clinical Psychology*, 73, 800–807. doi:10.1037/0022-006X.73.5.800
- Young, A. S., Klap, R., Sherbourne, C. D., & Wells, K. B. (2001). The quality of care for depressive and anxiety disorders in the United States. *Archives of General Psychiatry*, 58, 55–61. doi:10.1001/archpsyc.58.1.55