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# Health and Mental Health Policies' Role in Better Understanding and Closing African American–White American Disparities in Treatment Access and Quality of Care

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Since publication of 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)*, several federal initiatives signal a sustained focus on addressing African American–White American disparities in mental health treatment access and quality and open the way to unprecedented disparity reduction. These initiatives include institutional commitments to (a) research by the National Center for Minority Health and Health Disparities; (b) disparities monitoring by the Agency for Healthcare Research and Quality; (c) new epidemiologic and service delivery information on African American populations from the National Survey of American Life sponsored by the National Institute of Mental Health; as well as (d) opportunities inherent in the World Health Organization's interest in disease burden for making it possible to view African Americans' likely greater disease burden from mental illness as a legitimate source of concern. The Patient Protection and Affordable Care Act affords unprecedented opportunities for increasing African Americans' treatment access and quality of care nationwide. By familiarizing themselves with these initiatives, and taking advantage of possibilities they offer, those committed to reducing African American–White American disparities in mental illness, and treatment access and quality, can make inroads toward improving African Americans' mental health and facilitating their successful functioning in all spheres of community living.

**Keywords:** mental health disparities, African Americans, health care reform, Surgeon General's Report

**T**he 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 [DHHS], 2001)* was a milestone, as a large volume of citation to it attests. Since publication of the Supplement, several events have established a national commitment to understanding African American–White American treatment disparities and understanding the consequences of these disparities, as well as presenting ripe opportunities for realizing actual disparity reduction on a large scale.

This article is a 10-year follow-up of the Supplement's chapter on African American populations' mental health and African American–White American disparities. It is one of three articles appearing in this *American Psychologist* special section marking the Supplement's 10-year anniversary. The article restates conclusions from the Supplement's African American chapter, showing how they are reflected in post-Supplement developments.

Like the corresponding chapter in the Supplement, this article's scope is restricted to African American populations; other articles in the special section are devoted to consideration of other ethnic minority groups (Latino Americans: Lopez, Barrio, Kopelowicz, & Vega, 2012; Asian Americans: Sue, Cheng, Saad, & Chu, 2012). Also like the corresponding chapter in the Supplement, this article addresses high-priority concerns, although not necessarily unique concerns, for understanding and closing treatment and quality-of-care disparities between African Americans and White Americans.

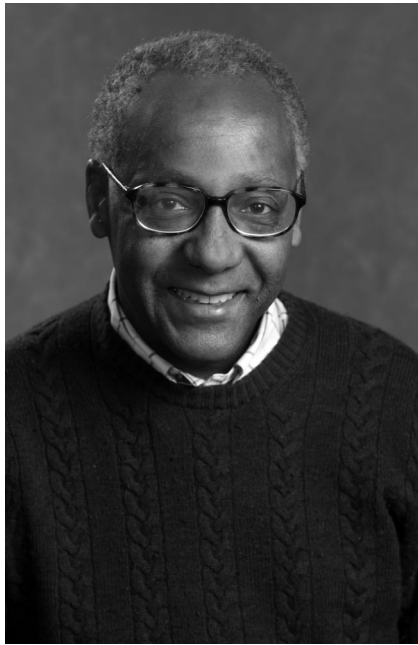
Several events highlighted below reflect a *direct, continuing* federal commitment to address or monitor health disparities, including mental health disparities, as such. Others address mental health in particular, bringing rigorous scientific attention to a nationally representative sample of African American populations. Others represent wider health policies that, as a byproduct, inevitably will affect disparities and that should be monitored and steered in order that they might fulfill their considerable potential for bringing about significant disparity reduction.

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*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 Latino Americans (Lopez, Barrio, Kopelowicz, & Vega, 2012) and Asian Americans (Sue, Cheng, Saad, & Chu, 2012).

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## **The U.S. Government's Disparities-Focused Responses**

The commissioning and publication of the Supplement (DHHS, 2001) stamped a federal imprint of importance on considering African American–White American mental health disparities as a national problem. Even so, federal concern with health disparities was hardly new. For example, highlighting what would later be called health disparities, the DHHS issued the 1985 *Report of the Secretary's Task Force on Black & Minority Health* (DHHS, 1985). Fifteen years later, the federal *Healthy People 2010: Understanding and Improving Health* (DHHS, 2000) paid close attention to racial and ethnic disparities in health status.

The Supplement sparked a renewed interest in disparities and focused particular attention on mental health. Asked about the impact of *Mental Health: A Report of the Surgeon General* and perhaps answering about both the report and the report's Supplement, former Surgeon General David Satcher indicated that “the discussion at the national level rose to a new level” (American Psychological Association, 2009, p. 27). I review several key post-Supplement events—national or international in scope, and most of them unprecedented—below.

### **Unequal Treatment: The Institute of Medicine Report**

Acknowledging undeniable indications that ethnic minority populations received less and lower quality health care than White Americans, Congress requested that the Institute of Medicine (IOM) evaluate health disparities as a societal problem (Smedley, Stith, & Nelson, 2003). Congress requested that the IOM assess how prevalent health care

disparities were and how much their existence went beyond well-established treatment determinants such as ability to pay and insurance coverage. In addition, the IOM was charged with evaluating the degree to which bias, discrimination, and stereotyping contributed to health care disparities, and to recommend steps that would eliminate them.

The IOM responded with a lengthy report (Smedley et al., 2003), which concluded that health care disparities were genuine and problematic. It could identify no single cause: “The sources of these disparities are complex, are rooted in historic and contemporary inequities, and involve many participants at several levels, including health systems, their administrative and bureaucratic processes, utilization managers, healthcare professionals, and patients” (Smedley et al., 2003, p. 1).

The IOM report's comprehensive approach to understanding health care disparities and proposing strategies for disparities reduction made a particularly noteworthy contribution by depicting myriad factors that might be responsible for them (Snowden & Yamada, 2005). Thus, beyond the “clinical encounter,” the IOM report referred to “system-level factors” that might produce disparities and proposed “systemic strategies” to overcome them. Its chapters included one titled “Legal, Regulatory, and Policy Interventions,” pointing to an important level of analysis for explaining health care disparities (Smedley et al., 2003).

The important level of analysis is the mental health financing and treatment policies that provide a context for the clinician–client interactions that constitute mental health practice. The components of this sometimes-puzzling network of federal, state, and local rules, organizational arrangements and interorganizational ties, and financial incentives are all important to consider. They define when, where, and how mental health care comes to be delivered in the real world of practice.

To illustrate systems-related origins of disparities, consider a key problem identified in the Supplement: “Mental health care occurs relatively frequently in emergency rooms and psychiatric hospitals” (DHHS, 2001, p. 68). That African Americans continue to be overrepresented in emergency and inpatient services has been affirmed (Snowden, Catalano, & Shumway, 2009; Snowden, Hastings, & Alvidrez, 2009). These disparities can be traced, in part, to a system-level characteristic of mental health treatment: inadequate opportunities for welcoming outpatient care, sometimes caused by shrinkages in overall outpatient treatment capacity (Snowden, Hastings, & Alvidrez, 2009). I later examine two areas for policy inquiry—African Americans' likely greater “disease burden” from mental illness, and the passage of the Patient Protection and Affordable Care Act (2010; ACA)—when I consider where African American–White American mental health-treatment disparities might be fruitfully addressed.

### **A Wider Perspective: The National Center on Minority Health and Health Disparities**

The National Center on Minority Health and Health Disparities (NCMHD; [www.ncmhd.nih.gov](http://www.ncmhd.nih.gov)) was established by the passage of the *Minority Health and Health Dispar-*

ities Research and Education Act of 2000. It was founded in response to a growing concern about disparities and to address the challenge they posed to U.S. equity ideals. It assists in the development of an integrated national health research agenda across disciplines; promotes and facilitates a minority health research environment aimed at identifying potential risk factors for disparate health outcomes; and supports research capacity building in minority and medically underserved communities.

NCMHD takes a broad view of health disparities and focuses its programs on general health problems and health care access and quality. It embraces mental health problems within this encompassing framework, and it provides opportunities to investigate mental health treatment disparities, often pursued within their biomedical and sociocultural contexts. NCMHD represents—like the IOM report—an effort to examine mental health disparities in a wider perspective, within an ongoing institutional framework with continuing resources.

NCMHD's general health perspective encompasses mental health but takes no special account of mental health. For mental health specialists, this general health perspective is a beneficial double-edged sword. It provides a valuable "mainstreaming" of mental health within discussions of general health care, and it can promote greater attention to the role of general health/mental health comorbidities in understanding mental health and treatment.

In fact, general health/mental health comorbidities may be particularly important for understanding African American populations' mental health care. The Supplement highlighted the "disproportionate share of health problems" borne by African American populations, citing higher rates of diabetes, heart disease, prostate and breast cancer, HIV/AIDS, and infant mortality as especially troubling (DHHS, 2001, p. 56), and it discussed the adverse impact of physical illness on African American populations' mental health. Important developments in health care delivery—such as public health care payers' promotion of widespread implementation of "patient-centered medical homes"—will disproportionately affect African Americans, who are disproportionately ill and disproportionately served by safety-net health care providers who are especially encouraged to organize primary care services as patient-centered medical homes (Kilo & Wasson, 2010). Patient-centered medical homes incorporate chronic disease management models that will reach many chronically ill African Americans, and it is important that mental health treatment play a prominent role in addressing the health needs of many African Americans with comorbid mental illness. Promoting mental illness's importance in NCMHD's agenda—as a specialty deserving attention in its own right and for its comorbid occurrence with the many illnesses from which African Americans suffer at too high a rate—poses a key challenge. Researchers, and others, concerned with African American populations' mental health must work to ensure that mental health problems are accorded the high priority they deserve.

### **Defining and Monitoring Disparities: The Agency for Healthcare Research and Quality's Disparities Reports**

The Agency for Healthcare Research and Quality (AHRQ) has become a lead federal agency for tracking and monitoring health disparities (Kelley, Moy, Stryer, Burstin, & Clancy, 2005). AHRQ implemented a congressional mandate to monitor "prevailing disparities in health care delivery as they relate to racial factors and socioeconomic factors" (Moy, Dayton, & Clancy, 2005, p. 376). The focus was on disparities in treatment access and quality of medical care, and it included indicators of regular, prescribed immunization, diabetes treatment, prenatal care, emergency room use, and other kinds of medical care whose receipt was associated with improved health.

AHRQ confronted a fundamental question in going about its work: Exactly what constitutes a disparity? Following the IOM, AHRQ adopted a definition from IOM's disparities report: Disparities are differences in treatment provided to members of different racial or ethnic groups that are not justified by underlying (mental) health conditions or preferences.

The claim that minority–White American "underlying (mental) health conditions" differences—differences in treatment need—can legitimize minority–White American differences in treatment use has been met with little objection. More controversial is AHRQ's proposal that minority–White American differences in treatment preferences can legitimize treatment differences. In fact, treatment preferences can be socially conditioned, sometimes by circumstances we as a society should not accept. Like others but perhaps more so, African Americans sometimes reject mental health treatment because of the considerable stigma associated with mental illness (Alvidrez, Snowden, & Patel, 2010; Anglin, Link, & Phelan, 2006). In an interview, former Surgeon General David Satcher underscored stigma's entrenchment and power to thwart treatment seeking and recovery (American Psychological Association, 2009). Rather than acquiesce in stigma-based treatment avoidance, we should encourage stigma reduction efforts in African American populations like those showing promise in preliminary research (Alvidrez, Snowden, Rao, & Boccia, 2009).

### **Upgrading the Information and Knowledge Base: The National Survey of American Life**

The Supplement (DHHS, 2001) identified inconsistencies in the epidemiologic knowledge base—for example, in determining the role of socioeconomic standing in explaining African American–White American differences in mental illness rates. The National Survey of American Life (NSAL) was conducted after the Supplement's publication to paint a comprehensive picture of mental illness and treatment among African Americans. The data were obtained by African American population experts experienced in understanding the subtleties of African American life. The NSAL was part of the National Institute of Mental Health's Collaborative Psychiatric Epidemiology Surveys,

which included the National Comorbidity Survey Replication (NCS-R), and the National Latino and Asian American Study (Pennell et al., 2004).

The NSAL's core included a household probability sample of 3,570 African Americans 18 years of age and older and 891 non-Hispanic White Americans. Recognizing a significant and growing presence of African Americans with overseas origins (Berlin, 2010), the NSAL researchers included 1,621 Blacks of Caribbean descent. By oversampling Caribbean Blacks, NSAL investigators addressed the Supplement's recognition that African American populations' heterogeneity was often overlooked but increasing: "Indeed, 6 percent of all blacks in the United States today are foreign-born. Most of them come from the Caribbean" (DHHS, 2001, p. 53).

From the NSAL, investigators learned about rates and types of African Americans' mental health treatment. Only 10.1% of African American NSAL respondents used some form of mental health care services in the past year (Neighbors et al., 2007), including the 31.9% of African Americans meeting *Diagnostic and Statistical Manual of Mental Disorders* (4th edition, *DSM-IV*; American Psychiatric Association, 1994) criteria who received treatment. These African American population estimates compare with an estimated 17.9% of the general population who used services in the past year and 41.1% of persons in the general population meeting *DSM-IV* criteria for the presence of mental disorder (Wang et al., 2005). Elsewhere, examining the experience of Caribbean Blacks using the NSAL, investigators demonstrated that U.S.-born study participants were more likely to receive care than were first-generation immigrants (Jackson et al., 2007). As well, relatively few African American older adults use mental health services (Neighbors et al., 2008).

The NSAL's results affirm a conclusion from the Supplement (DHHS, 2001) that has also been reported elsewhere: that African Americans' untreated mental illness is appreciably more untreated than mental illness suffered by White Americans, and that African Americans' psychiatric hospitalization rates are higher than those of White Americans. As I show later, when I consider the burden of disease borne by African Americans, African Americans' treatment quality is lower than that of White Americans. The Supplement's conclusions in these regards have been affirmed in subsequent research.

## **Disease Burden: International Perspectives on Health and Societal Well-Being and African American Populations**

The Supplement concluded that African American populations and other ethnic minority groups likely had a greater mental-illness-induced "disease burden" than White Americans (DHHS, 2001), and subsequent developments highlight mental illness's contribution to disease burden worldwide. Because of mental-illness-induced disease, the World Health Organization (WHO) has concluded that there can be "no health without mental health" (quoted in Prince et

al., 2007, p. 859), and it sponsored international inquiry as a foundation for subsequent programmatic initiatives.

WHO's concern was sparked by rigorously derived evidence documenting mental illness's considerable contribution to the global burden of disease. According to Eaton et al. (2008, p. 1), "In 2001, neuropsychiatric conditions as a broad category were responsible for 21% of the total disease burden in the world: only infectious and parasitic diseases (41%) and cardiovascular disease (26%) were more important." This very high level of disease burden has focused attention on international capacities to treat mental illness and on the ability to increase the availability, use, and effectiveness of mental health services to reduce the share of burden resulting from untreated mental illness.

Laying a foundation for proving greater disease burden among African American populations, NSAL researchers established that mental illnesses experienced by African Americans can be especially disabling. Disability increases with depression's severity and chronicity (Judd, Paulus, Wells, & Rappaport, 1996); African Americans with mental illness experience more disabling forms of mental illness and experience them for longer periods of time than do other populations. According to NSAL data, among persons suffering from major depressive disorder (MDD), chronic MDD was about 57% for African Americans and 56% for Caribbean Blacks versus 39% for White Americans (Williams et al., 2007). Along with depression, Himle, Baser, Taylor, Campbell, and Jackson (2009) found that, whereas White Americans were at elevated risk for generalized anxiety disorder, panic disorder, and social anxiety, Caribbean Black respondents and African American respondents were more likely to meet criteria for posttraumatic stress disorder. As well, they found that when African American and Caribbean Black respondents met criteria for an anxiety disorder, they experienced higher levels of overall mental illness severity and functional impairment compared to White Americans.

Lower treatment rates for African American populations—along with greater exposure to adverse life circumstances and their resulting more severe and disabling mental illness—contribute to African American populations' greater mental-illness-related disability. As previously reported in results from NSAL data, mentally ill African Americans are relatively unlikely to be treated. In another demonstration, by probing African American–White American treatment disparities after strictly implementing AHRQ's definition of disparity, which adjusts for differences in treatment need, researchers found that approximately 41.1% of persons with a *DSM* diagnosis in the preceding 12 months were treated (Wang et al., 2005), compared to approximately 31.9% of mentally ill African Americans. Nor do trends toward higher society-wide treatment rates appear to favor African Americans relative to White Americans. Cook, McGuire, and Miranda (2007) found that African American–White American treatment disparities grew from a 2000–2001 eight percentage point differential to a 2003–2004 differential of almost nine percentage points.

The impact of disparity in access to treatment is compounded by the lower quality of treatment African Americans receive when they are treated. As a first step toward assessing quality of care, survey researchers constructed “minimally adequate treatment” indicators. These indicators refer to receiving (a) pharmacotherapy with an appropriate medication for at least two months, along with four visits to any type of physician for medication management; or (b) attending at least eight sessions of psychotherapy with any general medical, specialty mental health, or human services professional lasting, on average, 30 minutes (Wang et al., 2005). The NCS-R estimated that, nationwide, 32.7% of treated persons received minimally adequate care, whereas only 21.2% of the NSAL’s African American respondents and Black Caribbean respondents received minimally adequate care (Neighbors et al., 2007).

Focusing on a high-need sample—NCS-R respondents with serious mental illness—Wang, Demler, and Kessler (2002) estimated nationwide proportions of minimally adequately treated, seriously mentally ill persons. After adjusting for covariates, they found that 19.4% of treated, seriously mentally ill African Americans received minimally adequate treatment, whereas 37.6% of treated White Americans received such treatment.

Going further in assessing treatment quality, another study reported that treated African Americans had lower odds of receiving evidence-based treatments than treated White Americans (Wang, Berglund, & Kessler, 2000). Exceptions have been reported (Harman, Edlund, & Fortney, 2004), but the bulk of the evidence indicates that treated African Americans receive a lower quality of care than do treated White Americans. Untreated mental illness and inadequately treated mental illness are far too prevalent in the United States and worldwide, but in the United States, they are especially prevalent among African Americans (Wang et al., 2000).

Direct disease burden calculations remain to be performed, but there is now good reason to believe that, as foreshadowed in the Supplement, because African Americans’ mental illness goes untreated or is treated inadequately, their disease burden is greater than that of White Americans. The lesser social and economic functioning induced by mental illness that defines disease burden may help to explain African American overrepresentation among homeless persons and persons belonging to other “High-Need Populations” highlighted in a section of the Supplement bearing this title (DHHS, 2001, p. 61). WHO’s concern about disease burden worldwide, with dire consequences for economic productivity and social development, appears to be solidly applicable to African American populations in the United States.

## **African American Populations’ Mental Health Treatment and Health Care Reform**

In 2010, the U.S. Congress passed, and President Obama signed into law, the [Patient Protection and Affordable Care Act \(2010; ACA\)](#). That the ACA is permitted under the

constitution was affirmed by the U.S. Supreme Court in a 2012 decision. The ACA will overcome many irrational and unjust features of the U.S. health care system, bringing about dramatic transformation at an accelerating pace in upcoming years. For reasons discussed below, the ACA holds considerable promise for bringing timely and effective mental health treatment to mentally ill African Americans.

Several features of health care reform have been implemented already, and others seem unlikely to change under most implementation scenarios. In the following sections I identify two features that I think will be at least partially implemented and that merit special consideration for their potentially great impact on African American populations’ mental health treatment access and quality of care.

### **Improving African Americans’ Treatment Access: Mandating Insurance Coverage and Expanding Medicaid**

An overriding goal of the ACA is to expand insurance coverage to reach over 30 million Americans who presently lack coverage. African Americans are notably overrepresented in this population. Thus, in 2009, 15.8% of White Americans but 21% of African Americans lacked any health insurance coverage (DeNavas-Walt, Proctor, & Smith, 2010). The Supplement singled out lack of insurance coverage for special consideration as a barrier to mental health care: “Disparities in access to mental health services are partly attributable to financial barriers. Better access to private coverage is an important step . . . African American populations’ reliance on public financing suggests that the provisions of the Medicaid program are also important” (DHHS, 2001, p. 68).

Critically, the ACA’s proposed “essential benefit package” includes coverage of mental health and substance abuse disorders (Clay, 2010). The legislation proposes subsidies, defraying costs for persons who cannot afford to purchase insurance because they lack the means to do so. If the program is implemented and if it works as intended, virtually all uninsured Americans will have insurance coverage by 2015. However (as discussed below), in practice, the drive toward universal coverage might not close disparities—rather, it might increase them.

Universal coverage is envisioned to be achieved, in part, through expansion of the federal–state Medicaid program for coverage of persons whose income is somewhat above the poverty line and persons whose incomes fall below the poverty line but who do not meet current criteria for Medicaid coverage (Newhouse, 2010). Already, Medicaid is very important as a source of mental health treatment financing: The program has become the leading payer for mental health care in the United States (Frank & Glied, 2007).

A disproportionate number of African Americans are poor: 27.1% of African Americans are covered by Medicaid compared to 10.7% of White Americans (DeNavas-Walt et al., 2010). Furthermore, African Americans are also overrepresented among the population of near-poor per-

sons, a population that is the target of Medicaid expansion. Thus, the number of African Americans who receive Medicaid coverage, and perhaps the illnesses for which they require treatment, will increase greatly after Medicaid's expansion is implemented.

Three problems undermine health care reform's capacity for "universal coverage" to eliminate mental health treatment access disparities. The first obstacle to "universal coverage" and disparity reduction arises because the U.S. Supreme Court, as it affirmed the ACA's constitutionality, struck a blow to the ACA's proposed expansion of Medicaid. The Court ruled that Medicaid expansion cannot be mandatory—that states' participation must be fully voluntary, a matter left to their discretion. Despite strong incentives favoring participation in Medicaid expansion, some states will decline the federal offer to do so. African Americans will be overrepresented among persons who remain uninsured because they do not qualify for subsidies to purchase health insurance in the private market and who remain ineligible for Medicaid in states not participating in Medicaid's expansion.

The second problem is a frequently encountered disparity in "uptake" of insurance plan benefits when they are made available to African Americans and White Americans. The uptake problem is that, when they are offered health insurance benefits, African Americans often take advantage of them at disappointingly low rates. Studies of child-serving extensions of the state-federal Medicaid program—which provides for annual screening and treatment for screening-identified conditions—show only modest gains in enrollment and fewer-than-expected improvements in access to health care, with lower uptake rates among African Americans (Gavin, Adams, & Herz, 1998; Herz, Chawla, & Gavin, 1998). Many studies have investigated access to and use of preventive services for children, and most research points to a variety of factors that explain the uptake problem, including financial factors, sociodemographic characteristics, parents' knowledge of and perceptions of such care, and provider participation factors.

Under the ACA, health insurance uptake is made mandatory, and African American populations will be disproportionately penalized if they do not comply with provisions requiring that they purchase insurance coverage. Insofar as African Americans are disproportionately unlikely to comply with a mandate requiring them to purchase insurance coverage, African American-White American disparities in coverage—and potentially in access—might widen rather than shrink.

A third reason that insurance coverage expansion toward universal coverage might not eliminate treatment access disparities is that insurance coverage promotes mental health treatment less for African Americans than it does for White Americans. Researchers have shown that, when insured, African Americans seek treatment less frequently in response to more generous mental health coverage than do White Americans (Thomas & Snowden, 2001). Whereas researchers have documented this problem, they have not yet explained it.

Through subsidized purchase of private coverage and through Medicaid expansion in participating states, many more African Americans with mental health problems will acquire the means to receive treatment than before. However, true universal coverage is unlikely to come to come about, because some states will decline to undertake Medicaid expansion and some individuals will not comply with the individual mandate to purchase health insurance. African Americans will be overrepresented among persons continuing to lack insurance coverage, perhaps even more than they were before. Among the insured, it is likely that disproportionately many mentally ill African Americans will fail to use their mental health treatment benefit to purchase needed mental health care. These and other problems must be monitored and overcome to ensure that expanded mental health coverage fulfills its considerable potential to overcome well-established mental health treatment access disparities.

### **Improving African Americans' Treatment Quality: Comparative Effectiveness Research**

The Supplement highlighted the lack of complete, fully trustworthy knowledge on a key issue:

Whether African Americans and White Americans benefit from treatment in equal measure is still under investigation. . . . Little research has examined the impact on African Americans of care delivered under usual conditions of community practice. More remains to be learned about when and how treatment must be modified to take into account African American needs and preferences." (DHHS, 2001, pp. 68–69)

Knowing what treatments work best for African Americans is essential for providing them with high-quality care.

In order to promote efficient and effective health care, the ACA allocates more than 1 billion dollars for "comparative effectiveness research," and this provision of the law holds great promise for increasing African Americans' quality of mental health care. As explained by AHRQ (n.d., para. 5), "Comparative effectiveness research requires the development, expansion, and use of a variety of data sources and methods to conduct timely and relevant research and disseminate the results in a form that is quickly usable by clinicians, patients, policymakers, and health plans and other payers." In legislative language and in spirit, comparative effectiveness research includes translating evidence-supported mental health treatments to African American populations and their life circumstances and disseminating the findings to African American people and to the practitioners who treat them.

For implementing comparative effectiveness research programs, one step directly addresses a possible gap between "efficacy studies" and real-world practice conditions. It calls for investigators to identify gaps between existing medical research and the needs of clinical practice, expressly emphasizing the need for more effectiveness studies beyond efficacy studies, in part because African American populations and other ethnic minority populations are underrepresented in efficacy studies. It acknowledges that the applicability of resulting knowledge to ethnic

minority populations is often difficult to ascertain from evidence presently available (AHRQ, n.d.). As they design and conduct needed effectiveness studies, researchers can draw upon existing resources to inform them as to how to maximize participation from marginal, disenfranchised African American populations (Jones, Hadder, Carvajal, Chapman, & Alexander, 2006).

The letter and spirit of comparative effectiveness studies invite examination of how best to implement evidence-supported treatments in African American populations. These studies promise to identify when modification is needed for effective implementation and when treatments can be delivered in their standard form.

Comparative effectiveness research goes beyond supporting scientific study of treatment effectiveness under diverse implementation conditions. It also supports steps toward dissemination of findings to diverse audiences of consumers and providers. Its focus is not on developing knowledge for its own sake, but rather on helping consumers and providers to make informed treatment choices. It recognizes fully that active steps are needed to bring information to intended audiences in timely, user-friendly ways. For these reasons, comparative effectiveness research supports scientific study of treatment adaptation to suit African American populations' sociocultural circumstances, and it supports dissemination of the resulting knowledge to practitioners, consumers, and other key stakeholders.

The ACA's emphasis on, and its resources directed to, comparative effectiveness research make it important for improving the quality of health and mental health care for everyone. This provision of the law paves the way for programmatic efforts to translate evidence-supported treatments to achieve the best result for African Americans with mental illness and to place useful information in the hands of practitioners and consumers. In this manner, the ACA can improve African Americans' quality of mental health treatment. Indeed, the legislation cannot completely achieve its objectives, which include better quality health care for everyone, unless it succeeds in reducing African American–White American disparities in quality of mental health care.

## Conclusion

Building on momentum established by the Supplement (DHHS, 2001), newer institutional commitments and policy initiatives demonstrate greater society-wide notice of disparities, including African American mental health treatment disparities, and present opportunities to widen the mental health treatment knowledge base and to use policy measures to close these disparities. Research support from NCMHD, as well as disparities-monitoring commitments by AHRQ, enlarge the capacity for research and ongoing disparities monitoring. WHO's interest in mental health disease burden permits following up on the Supplement's insight that greater disease burden might impose special social and economic adversity on African American populations, placing efforts to measure the magnitude and

consequence of African American populations' disease burden in a worldwide context.

Passage of the ACA presents a twofold opportunity for society-wide disparities reduction. Its universal coverage aim can close African American–White American treatment access disparities, if equal benefit uptake and equal mental health benefit provision translate into equal receipt of mental health treatment among mentally ill African Americans and White Americans. Among mentally ill persons receiving treatment, an equally high quality of care can be realized if productive use is made of comparative effectiveness research's considerable potential for adapting treatments for the very best fit with African American populations' social and cultural circumstances, with dissemination of resulting information to key stakeholder groups.

What began with publication of the Supplement (DHHS, 2001) under an African American surgeon general can reach its greatest fulfillment under a U.S. president who is African American. These historic figures have presented us with historic opportunities to improve African Americans' mental health and for widescale betterment of African American communities.

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# Asian American Mental Health

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## *A Call to Action*

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*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) was arguably the best single scholarly contribution on the mental health of ethnic minority groups in the United States. Over 10 years have now elapsed since its publication in 2001. This article highlights advances and illuminates gaps in the knowledge gained about the mental health and psychotherapeutic treatment of Asian Americans in the past decade. Though larger epidemiological surveys point to lower prevalence rates of mental illness in Asian Americans, further advances are needed in culturally valid assessment and quantification of cultural biases in symptom reporting in order to draw definitive conclusions about the state of Asian American mental health. A focus on prevalence in Asian Americans as a whole also shrouds important subgroup elevations such as heightened suicide risk in Asian elderly women or greater posttraumatic stress disorder in Southeast Asian refugees. Despite important developments in our knowledge about mental health prevalence, help-seeking behaviors, and culturally competent treatments for Asian Americans, it appears that troublingly low rates of service utilization still remain even when one accounts for the seemingly low prevalence rates among Asian Americans. Some progress has been made in the cultural adaptations of psychotherapy treatments for Asian Americans. In order to reduce mental health care disparities, greater efforts are needed to provide outreach at the community level and to bridge the gap between mental health and other medical or alternative health facilities. We call for innovation and provide recommendations to address these issues in the next decade.*

**Keywords:** Asian Americans, mental health, prevalence, utilization, appropriateness

**T**he U.S. Surgeon General's report *Mental Health: Culture, Race, and Ethnicity—A Supplement to Mental Health: A Report of the Surgeon General* ("the Supplement"; U.S. Department of Health and Human Services [DHHS], 2001), was based on the best available scientific evidence concerning the mental health of ethnic minorities in general and Asian Americans in particular. The Supplement identified several important areas of need that were necessary to confront in order to address the

mental health problems of Asian Americans in the United States. In this article, we evaluate the progress achieved over the past 10 years in three problem areas identified in the Supplement—need for services, utilization of services, and appropriateness and outcomes of these services.

The first problem area—need for services—addressed the limited nature of knowledge about the prevalence of mental health problems among Asian Americans and Pacific Islanders (AA/PIs). The Supplement highlighted information about Asian subgroup differences in mental disorder prevalence (e.g., higher posttraumatic stress disorder, or PTSD, in Southeast Asian refugees) but also showed discrepancies between some studies that indicated greater severity of mental health disorders and other studies that showed lower prevalence and severity of mental health disorders among Asian Americans. Overall, these inconsistencies in the research along with the insufficient amount of research precluded definitive conclusions about the state of Asian American mental health. Nevertheless, provisional conclusions in the Supplement stated that "the overall prevalence of mental health problems and disorders among AA/PIs does not significantly differ from prevalence rates for other Americans" (DHHS, 2001, Executive Summary, p. 14). In this article, we revisit the knowledge generated in the past 10 years to discern whether more certainty can now be culled about Asian Americans' need for services. We show how developing but insufficient advances in culturally valid assessment and quantification

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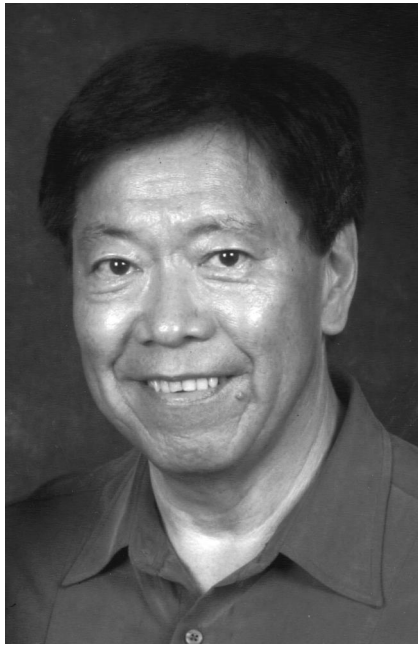
*Editor's note.* This article is one of three in a special section presented in this issue of the *American Psychologist* (October 2012) as a 10-year follow-up to the 2001 Surgeon General's report *Mental Health: Culture, Race and Ethnicity—A Supplement to Mental Health: A Report of the Surgeon General*.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

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of cultural biases in symptom reporting make it difficult to draw definitive conclusions about the state of Asian American mental health.

The second area of attention in the Supplement pertained to the unmet service needs of Asian American individuals. The Supplement concluded that

AA/PIs have lower rates of utilization compared to Whites. This underrepresentation in care is characteristic of most AA/PI groups, regardless of gender, age, and geographic location. Among those who use services, the severity of their condition is high, suggesting that they delay using services until problems become very serious. Stigma and shame are major deterrents to their utilization of services. (DHHS, 2001, Executive Summary, p. 14)

Limited English proficiency and a lack of Asian-language-proficient service providers were also identified as major barriers to service use. We examine research conducted in the past 10 years to determine whether sufficient advances have been made to decrease these gaps in mental health service use.

The third problem area identified in the Supplement that we address concerns the appropriateness and outcomes of mental health services. At the time of the Supplement's publication, there was "limited evidence regarding the response of Asian Americans to mental health treatment" (DHHS, 2001, p. 119). Factors that play a role in improved outcomes and use of services were identified, such as ethnic matching or provision of services in one's preferred language, especially for less acculturated Asian Americans. However, the Supplement identified a need for more research examining treatment outcomes and the appropriateness of services. In this article, we investigate innovations in mental health services in the past decade to determine

whether services have become more appropriate to the needs of Asian Americans.

## **Need for Services: The State of Asian American Mental Health**

Since the writing of the Surgeon General's Supplement (DHHS, 2001), several large surveys have been completed that provide important epidemiological information on the state of mental health in Asian Americans.

### **New Knowledge About Prevalence Rates**

Several groundbreaking epidemiological surveys have been completed in the past decade that estimate the prevalence of mental health problems among Asian Americans. We review findings from these and other studies and provide a critique of attempts to determine prevalence rates.

#### **National Latino and Asian American Study.**

The National Latino and Asian American Study (NLAAS) was the first national epidemiological survey of Asian Americans in the United States and represents a significant advance over previous epidemiological studies (Alegría et al., 2004; Heeringa et al., 2004). For example, previous major studies such as the Epidemiologic Catchment Area study (Regier et al., 1993) and the National Comorbidity Study (Kessler et al., 1994) included extremely small samples of English-speaking Asian Americans. The Chinese American Psychiatric Epidemiological Study was conducted in one geographic site among one Asian subgroup only and focused mainly on mood disorders (Takeuchi et al., 1998; Zheng et al., 1997).

The NLAAS used a stratified area probability sample design to recruit 2,095 Asian Americans 18 years or older who resided in any of the 50 states and Washington, DC, between 2002 and 2003. The NLAAS sample comprised predominantly three Asian ethnic subgroups—600 Chinese, 508 Filipinos, and 520 Vietnamese—and 467 other Asians; about 75% of the sample was foreign born. Household interviews were conducted in English, Mandarin, Cantonese, Tagalog, or Vietnamese by trained lay interviewers. To assess lifetime and 12-month prevalence of psychiatric disorders, the NLAAS used the World Health Organization Composite International Diagnostic Interview (WMH-CIDI; Kessler & Üstün, 2004), a diagnostic interview based on criteria from the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)* (American Psychiatric Association, 1994). The NLAAS is considered one of the major, pioneering research projects in Asian American mental health.

The NLAAS results indicated that the overall lifetime prevalence of any psychiatric disorder among Asian Americans was 17.3%, and the 12-month prevalence was 9.19% (Takeuchi et al., 2007). While the NLAAS focused on Asian Americans and Latinos, their rates can be compared with those of other ethnic groups from previous studies. These Asian American prevalence rates were lower than those reported for non-Hispanic Whites, African Americans, and Hispanics in the National Comorbidity Study (Breslau, Kendler, Su, Gaxiola-Aguilar, & Kessler, 2005),



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lower than the 28.1%–30.2% lifetime prevalence rate of any psychiatric disorder reported by Latinos in the same NLAAS sample (Alegría et al., 2007), and lower than the 30.5% lifetime prevalence rate among African Americans in a study of comparable methodologies, the National Survey of American Life (Williams, Haile, Gonzalez, Neighbors, & Baser, 2007). Comparisons of rates across different studies are hazardous because of variations in methodology, assumptions, disorders examined, and sampling. Nevertheless, Asian Americans have consistently reported lower rates of mental disorders.

The NLAAS also revealed that immigration-related factors were related to the presence of disorders but that the patterns differed for Asian men and women. Nativity was strongly associated with the presence of disorders for Asian women, whereas English proficiency was associated with disorders for Asian men. Asian women who were born outside the United States were less likely to have any lifetime depressive, anxiety, substance, or psychiatric disorder than were those who were U.S. born. Nativity was associated with anxiety disorders only for 12-month prevalence. In addition, second-generation women were at high risk for lifetime and 12-month prevalence of disorders. For Asian men, those who had higher levels of English proficiency generally had lower rates of lifetime and 12-month depressive, anxiety, and psychiatric disorders (Takeuchi et al., 2007). This study indicates that gender is an important factor to consider when assessing specific prevalence rates for mental problems in the Asian American population.

A number of investigators analyzed NLAAS data pertinent to other mental disorders and correlates of these disorders. For example, one study examined rates of eating disorders (Nicdao, Hong, & Takeuchi, 2007), and the results indicated that the lifetime and 12-month prevalence

rates of eating disorders were low among Asian Americans. The lifetime prevalence of eating disorders ranged from 0.08% for anorexia nervosa to 4.35% for any binge eating. Lifetime binge eating disorder was more prevalent among Asian women than Asian men.

It should be noted that the NLAAS sample included a somewhat higher proportion of foreign-born Asians than represented in the national population. The effect of this is unclear because immigrants may have a lower prevalence of mental disorders (Takeuchi et al., 2007). Nevertheless, a number of other studies using other sampling techniques also reveal a lower prevalence rate of mental disorders among Asian Americans.

### **The 2010 National Survey on Drug Use and Health (2012).**

The National Survey on Drug Use and Health (NSDUH), an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA), examines the mental health status and use of illicit drugs, alcohol, and tobacco products for various groups (e.g., African Americans, Hispanics, and non-Hispanic Whites) in the U.S. population. Using an independent, multistage, area probability sampling design, the 2010 NSDUH (SAMHSA, 2012) interviewed a total of 68,487 respondents 12 years of age or older. Most of the questions were administered via audio computer-assisted self-interviewing to provide the respondent with a maximum amount of privacy. The 2010 NSDUH noted that the interview was available in English or Spanish only. No interviews were conducted with those who did not speak English or Spanish.

Overall, findings from the 2010 NSDUH (SAMHSA, 2012) and previous NSDUH reports revealed that Asian Americans had the lowest rates of illicit drug use, alcohol use, tobacco use, substance dependence/abuse, and serious/overall mental health problems when compared with African Americans, American Indians/Alaska Natives, Hispanics, and non-Hispanic Whites. For example, among respondents age 18 or older, Asian Americans (15.8%) reported the lowest prevalence of past-year mental disorders when compared with Hispanics (18.3%), American Indians/Alaska Natives (18.7%), African Americans (19.7%), and non-Hispanic Whites (20.6%). Results from the annual surveys conducted over the past decade have revealed convergent results: Asian Americans, adults as well as youths, appear to have low rates of mental disorders and substance use.

These findings are also consistent with those of Price, Risk, Wong, and Klinge (2002), who examined rates of substance use and abuse by Asian Americans derived from four national epidemiologic studies: the 1999 National Household Survey on Drug Abuse, the 1992 National Longitudinal Alcohol Epidemiologic Survey, and the 1995 National Longitudinal Study of Adolescent Health In-School (Add Health S) and In-Home (Add Health H) Surveys. Results revealed that while different Asian subgroups varied in substance use, Asian Americans largely showed lower rates of substance use and abuse than non-Hispanic Whites and other ethnic minority groups.



**Carmel S. Saad**  
Photo by Yasmine Alfred.

**Studies on specific Asian American subgroups or specific mental disorders.** Other studies do not focus on representative samples of the U.S. Asian American population, but rather sample specific Asian American subgroups with specific mental disorders. These studies also provide valuable information about the state of Asian American mental health.

Studies on major depressive disorder have found elevated rates in some settings and that factors such as acculturation and immigration affect the prevalence of depression. For example, Yeung et al. (2004) studied the prevalence of major depressive disorder among Chinese Americans in a primary care setting in Boston, Massachusetts. Overall, the prevalence of major depression was found to be 19.6%, which was comparable to or higher than prevalence rates among predominantly White samples examined in previous studies in primary care settings. Yang and WonPat-Borja (2006) reviewed the Asian American mental health literature and found that studies on gender differences in rates of depressive disorders had mixed findings; some studies showed that Asian American women had higher levels of depression than Asian American men, while others did not. Studies on the association between immigration and depression also had mixed findings. Utilizing the Chinese American Psychiatric Epidemiological Study, Hwang, Chun, Takeuchi, Myers, and Siddarth (2005) showed that the risk for developing a depressive disorder decreased as length of residence in the United States increased. In addition, although Chinese immigrants were at highest risk for depression at or soon after their arrival in the United States, these immigrants had decreased risk as acculturation increased.

Other research has highlighted the fact that Southeast Asian refugees continue to suffer from high rates of psy-

chiatric disorders, decades after resettlement in the United States. Marshall, Schell, Elliott, Berthold, and Chun (2005) assessed the prevalence, comorbidity, and correlates of psychiatric disorders in Cambodian refugees two decades after resettlement in the United States. The vast majority of the respondents had been exposed to trauma and violence before immigration (e.g., 99% experienced near-death states due to starvation, 96% reported forced labor, 90% reported having a family member or friend murdered, and 54% reported having been tortured). About 70% of the respondents reported exposure to violence after resettlement in the United States. In terms of mental health status, 62% of the respondents had PTSD and 51% had major depression in the past 12 months. However, low rates of alcohol use disorder (4%) were found. Both premigration and postmigration trauma exposure were positively associated with 12-month PTSD and major depression.

As a whole, Asian Americans have been shown to have lower overall rates of completed suicide than non-Hispanic Whites, with 6.24 completed suicides per 100,000 AA/PI individuals compared with 14.31 completed suicides per 100,000 non-Hispanic Whites (Centers for Disease Control and Prevention, 2009). Similarly, Asian Americans as a group tend to have rates of nonfatal outcomes (e.g., suicidal thoughts and attempts) lower than or similar to those of non-Hispanic Whites. Among adults age 18 or older, the 2010 NSDUH found that the rates of having serious suicidal thoughts during the past year were 3.2% for Asian Americans, 4.6% for Native Hawaiians/Pacific Islanders, 4.0% for non-Hispanic Whites, 4.1% for African Americans, 2.4% for Hispanics, and 7.5% for American Indians/Alaska Natives (SAMHSA, 2012). Dululao, Takeuchi, and Hong (2009) studied lifetime suicidal ideation, plans, and attempts in Asian Americans using the NLAAS data and found an estimated lifetime prevalence of 8.6% for suicidal ideation and 2.5% for attempts. The National Comorbidity Survey, an epidemiological survey that employed a similar methodology, found a 13.5% lifetime prevalence of suicidal ideation and a 4.6% lifetime prevalence of suicide attempts in the general U.S. population (Kessler, Borges, & Walters, 1999).

Focusing the examination of suicide on Asian Americans as a whole shrouds the fact that certain subgroups of Asian Americans may be at higher risk for suicide. Research has demonstrated that elderly AA/PI women are at higher risk for suicide relative to other racial groups within the same gender and age category. According to the Centers for Disease Control and Prevention (2009), among women between the ages of 75 and 79, the rates of completed suicide were 7.34 per 100,000 for AA/PIs, 4.21 per 100,000 for non-Hispanic Whites, 0.77 per 100,000 for African Americans, 1.03 per 100,000 for Hispanics, and 0.00 per 100,000 for American Indians/Alaska Natives. Among women between the ages of 80 and 84, the rates of completed suicide were 3.68 per 100,000 for AA/PIs, 3.63 per 100,000 for non-Hispanic Whites, 1.37 per 100,000 for African Americans, 1.86 per 100,000 for Hispanics, and 0.00 per 100,000 for American Indians/Alaska Natives. Among women over 85 years old, the rates of completed



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suicide were 9.78 per 100,000 for AA/PIs, 3.16 per 100,000 for non-Hispanic Whites, 0.39 per 100,000 for African Americans, 0.48 per 100,000 for Hispanics, and 0.00 per 100,000 for American Indians/Alaska Natives. Yang and WonPat-Borja (2006) performed a thorough literature review and concluded that elderly Asian women were at higher risk for suicide than elderly women in other racial groups. Finally, Bartels et al. (2002) examined suicidal and death ideation among older primary care patients with depression, anxiety, and at-risk drinking. Similar to the previously cited trends of elevated risk in elderly Asian Americans, elderly Asian primary care patients reported the highest prevalence of suicidal or death ideation (56.8%) and elderly African American primary care patients reported the lowest (27.0%). Duldulao et al. (2009) further found that U.S.-born Asian women reported higher rates of suicidal ideation and suicide plans than U.S.-born Asian men and foreign-born Asian men and women. Weighted lifetime prevalence rates of suicidal ideation were 15.93% for U.S.-born women, 8.53% for U.S.-born men, 7.92% for foreign-born women, and 7.05% for foreign-born men. Weighted lifetime prevalence rates of suicide plans were 7.14% for U.S.-born women, 2.13% for U.S.-born men, 2.45% for foreign-born women, and 3.49% for foreign-born men. These findings point to the role of nativity and gender in predicting suicide risk. Duldulao et al. (2009) speculated that Asians who voluntarily immigrated to the United States might be healthier than their U.S.-born counterparts. The authors also speculated that U.S.-born and immigrant Asian women might experience sociopolitical risk factors for suicide (e.g., sexism and racism) differently or to different degrees. Nevertheless, it remains unclear what proximal factors might account for these differences.

In summary, while the Supplement report (DHHS, 2001) provided the provisional conclusion that rates of

mental disorders in Asian Americans were no different than those in the general population, more recent research demonstrates (a) lower overall prevalence rates for mental disorders among Asian Americans (Nicdao et al., 2007; Takeuchi et al., 2007) and (b) higher rates of specific disorders in certain Asian subgroups. Yet, these conclusions must be interpreted cautiously with careful consideration of research-related methodological and conceptual concerns.

### **Methodological and Conceptual Considerations in Prevalence Studies**

Questions about true prevalence rates and the accuracy of these methodologies that query for the presence of mental disorders have bedeviled researchers and service providers. On the one hand, if Asian Americans are less likely to suffer from mental disorders, reasons for this lower prevalence must be deduced in order to draw implications for the effective prevention and alleviation of mental distress. On the other hand, if prevalence rates have been consistently underestimated in research studies, the validity of research methods, measures, and conceptual schemes should be carefully scrutinized. In addition, stereotyping Asian Americans as a model minority group is harmful because an underestimation of their rates of mental disorders may result in need-based reduction of societal attention, goods, and services.

Two unresolved issues continue to prevent definitive conclusions about rates of mental disorders among Asian Americans. First, culturally based reporting biases among Asian Americans present problems for the cross-cultural reliability and validity of measures. These cultural reporting biases have not been quantified and integrated into recommendations for interpreting self-report measurement of psychopathology. Second, cultural bias in conceptualizations of mental disorders may influence the validity of prevalence studies.

**Questionable reliability and validity due to culturally based reporting biases.** Reporting biases, such as a tendency to underreport, overreport, or report certain mental health issues more than others, affect the reliability and accuracy of a particular measure's ability to represent the true state of mental health among Asian Americans. A handful of studies indicate the presence of culturally pertinent reporting biases.

For example, a study by Lam, Pepper, and Ryabchenko (2004) compared depressive symptoms among Asian and Caucasian Americans and found that self-report measures of depression may represent an overestimation of this clinical problem compared with interview-derived assessments. Participants were 238 Asian American and 556 Caucasian American college students who completed the self-report Beck Depression Inventory (BDI) and the Mood and Behavior Questionnaire (MBQ; unpublished measure). In addition, a subsample of participants ( $n = 118$ ; 75 screened positive for depression according to the BDI or MBQ, and 43 screened negative for depression) was interviewed using the Structured Clinical Interview for DSM-IV (SCID). Results indicated that Asian American students

had significantly higher BDI scores than Caucasian American students. About 21% of Asian American students reported a BDI score of 16 or higher, compared with 11% of Caucasian American students. Of the 118 participants who screened positive for depression and were interviewed using the SCID, 5.1% of Asian Americans and 7.6% of Caucasian Americans were diagnosed with current major depressive disorder; 17.9% of Asian Americans and 17.7% of Caucasian Americans were diagnosed with any current mood disorder (i.e., major depressive disorder, depressive disorder not otherwise specified, and dysthymia). Finally, among the 118 participants who were interviewed using the SCID, 33% of Asian Americans and 43% of Caucasian Americans were diagnosed with any current or lifetime mood disorder.

In contrast to findings from the self-report BDI, the SCID interview revealed no ethnic differences in rates of current major depressive disorder or any current or lifetime mood disorder between Asian American and Caucasian college students. Lam et al. (2004) suggested that the use of self-report measures such as the BDI as an indicator of depression may overestimate rates of depression, particularly among Asian Americans.

Okazaki (2002) examined discrepancies between a target person's self-rating of depression and social anxiety and ratings of the target provided by others. In general, the ratings of informants, compared with the self-rating of the target, underestimated the emotional distress. Importantly, the underestimation was greater for Asian American targets than for non-Hispanic White targets. Thus, whereas Lam et al.'s (2004) study showed cultural reporting bias depending on the administration style of the assessment (self-report versus in-person interview), Okazaki's (2002) study provided evidence of cultural reporting bias depending on the perspective of the respondent (self vs. other). Other studies have found that Asians in general have a middle response style in which there is a tendency to avoid the use of extremes on rating scales (Harzing, 2006). It is notable that these cultural variations in reporting tendencies were captured in studies prior to the Supplement's (DHHS, 2001) release (e.g., Morrison & Downey, 2000); little progress has been made over the last decade to synthesize these findings into concrete conclusions. As such, innovative efforts are needed to synthesize the extant knowledge about reporting biases into recommendations for cultural modifications to the content, scoring, and interpretation of methodologies utilized for assessment of mental disorders. Recommendations are discussed at the conclusion of this article.

**Cultural bias in the conceptualizations of mental disorders.** The accuracy of research on mental health prevalence among Asian Americans is also affected when the definition of a mental disorder applies unequally across ethnic boundaries. The Supplement report (DHHS, 2001) confirmed that different cultural groups vary in the distribution of disorders, symptom expressions, and culture-bound syndromes.

Since the writing of the Supplement, Hinton and colleagues (Hinton, Chhean, Pich, Hofmann, & Barlow, 2006;

Hinton, Pich, Marques, Nickerson, & Pollack, 2010) discovered a series of culturally specific idioms of distress—variations in symptom expression—among Southeast Asian refugees experiencing PTSD symptoms. In Cambodian refugees, somatic symptoms such as tinnitus (a buzzing in the ear) are likely to be associated with traumatic stress (Hinton, Chhean, et al., 2006). PTSD in Cambodian refugees also commonly co-occurs with the cultural phenomenon of *khyâl* attacks, which in addition to meeting diagnostic criteria for panic attacks also have characteristics unique to Cambodian individuals such as being accompanied by a fear of death from dysfunction of the body and being triggered by the transition from sitting to standing (Hinton et al., 2010). These cultural variations in symptom expression would not typically be captured by measures constructed around classic *DSM-IV-TR* (American Psychiatric Association, 2000) anxiety disorder criteria and would therefore be misdetected or underdetected by Western-based assessments.

Mental disorders in their entirety can also be expressed and experienced differently by Asian American subgroups—an example of a phenomenon called culture-bound disorders. Neurasthenia, for example, is a culture-bound syndrome especially common among Chinese individuals and is defined as a mental and physical exhaustion marked by chronic fatigue, weakness, aches, and pains. Neurasthenia had been listed in previous versions of the *DSM* but was removed in part because of its lower prevalence in the United States and because of the belief that the disorder was actually a masked version of depression. In a study of Chinese Americans in Los Angeles, Zheng et al. (1997) found that nearly 7% of a random sample of respondents reported they had experienced neurasthenia. The neurasthenic symptoms often occurred in the absence of symptoms of other disorders, raising doubt that neurasthenia is simply another disorder (e.g., depression) in disguise. Furthermore, more than half of those with this syndrome did not have a concomitant Western psychiatric diagnosis from the *DSM-III-R* (American Psychiatric Association, 1987). Thus, although Chinese Americans are likely to experience neurasthenia, mental health professionals using the standard U.S. diagnostic system may fail to identify this disorder and the need for mental health care.

Recently, Watters (2010) presented a more insidious perspective on Western influences on the process of defining and conceptualizing mental disorders. Watters argued that American domination of the mental health field has provided Americans with leverage in setting the definitions of mental disorders and culture-bound syndromes, which are then exported to other cultures. Watters (2010) stated that in the process of teaching the rest of the world to think like us, we have been exporting our Western "symptom repertoire." Such a process can alter the expression of mental illness in other cultures. Indeed, a handful of mental health disorders (e.g., depression, PTSD, and anorexia) now appear to be spreading rapidly across non-Western cultures.

Obviously, the "exporting" of definitions or conceptual schemes from one culture to another is appropriate if

their superior validity or usefulness can be demonstrated. However, the very basis for our knowledge in psychology has been challenged as being WEIRD (i.e., based on Western, educated, industrialized, rich, and democratic samples of human beings). Henrich, Heine, and Norenzayan (2010) contended that psychology has typically used these circumscribed samples to generate knowledge and theories when such samples are actually atypical of human beings throughout the world. Thus the accumulated knowledge gained from doing so, as well as the theoretical and conceptual schemes advanced, may be quite local and biased in favor of people fitting the profile of the WEIRD acronym. Such bias along with its exportation can lead to fundamental errors in the understandings and cross-cultural applicability of psychopathology.

Clearly, cultural bias in the conceptualization of mental disorders can influence not only an Asian American individual's reporting of symptoms but also clinicians' interpretation and classification of psychological symptoms. Future research is needed to modify assessment procedures to account for cultural variation in symptom expression, and to determine how to account for culture-bound disorders, when approximating the mental health needs of the Asian American population. In this regard, while large-scale and sophisticated survey research methods have been extremely helpful in epidemiology, qualitative studies within ethnic communities can provide valuable information on cultural and local conceptions of mental disorders.

Many scholars have pointed to the need for improvements in the upcoming release of the *DSM-5* (the new fifth edition of the *DSM* anticipated in 2013) to address cultural bias in the diagnosis of mental disorders (e.g., Alarcón, 2009; Alarcón et al., 2009; Lewis-Fernández et al., 2010). Identified needs have included an updated definition of a mental disorder that recognizes the importance of socio-cultural etiologies, revision of criteria sets or descriptive text to address cross-cultural limitations in diagnostic criteria, inclusion of cultural symptom variations in the definition of individual diagnostic categories, increased attention to the categorization of culture-bound syndromes, and an updated cultural formulation. The *DSM-5* is currently in development, with work groups developing proposed changes for cultural variations in mental disorders.

### **Summary: What Is the State of Asian American Mental Health?**

The consistency of findings on the low prevalence rates of mental disorders in Asian Americans is striking. Given the concerns over the validity of assessment of Asian Americans, the first step in developing our knowledge is to search for any systematic methodological or conceptual confounds that may explain the findings. Furthermore, the state of Asian American mental health cannot be summarized by any single statement about prevalence of mental disorders being higher, lower, or similar to those of other groups. Instead, there is tremendous variance based not only on the type of clinical problem but also on the Asian American

subgroup considered and on other variables such as acculturation, gender, and age.

Substance use disorders and eating disorders appear to occur at lower rates among Asian Americans as a whole. Findings for depression and anxiety have been mixed, with factors such as acculturation and immigration playing an important role differently for men and women. PTSD is elevated only among Southeast Asian refugee groups such as Cambodians, and elevated rates of suicide have been found only in Asian American elderly women.

Several issues pose additional challenges for the study of the state of Asian American mental health. It has been difficult to draw conclusions about the mental health of Asian Americans because of the lack of studies and the use of research designs or methods that do not provide direct or unequivocal evidence. In addition, certain subgroups of Asian Americans (e.g., Hmong, Iu Mien, and Pacific Islanders), who may have relatively high prevalence rates, have been inadequately sampled. While Asians constitute about 60% of the world's population, they represent only about 5% of the U.S. population (U.S. Census Bureau, 2010). Therefore, Asian American researchers have a difficult time finding adequate or representative samples of Asian Americans. The heterogeneity of the Asian American population further complicates attempts to find adequate samples (e.g., selective attrition from research participation, immigrant vs. native-born status, English language proficiency, different levels of acculturation).

While some researchers have argued that prevalence rates among Asian Americans are low (because of child-rearing practices, cultural resources, spirituality, etc.), others believe that the rates are high because of cultural conflicts and experiences with microaggression. Particularly for mental disorders such as depression and anxiety for which there is conflicting evidence in the literature, perhaps the largest barriers to definitive conclusions about prevalence rates lie within several methodological and conceptual limitations. The unknown quantity of culturally based reporting biases and of cultural biases in conceptualizations of mental disorders makes it difficult to determine the accuracy of the prevalence data reported in this article. A quantification of such reporting tendencies and biases in symptom expression or psychopathology conceptualization is needed in order to develop recommendations for future interpretation of prevalence research.

### **Utilization of Mental Health Services**

The Supplement (DHHS, 2001) to the Surgeon General's report concluded that Asian Americans have the lowest rates of service utilization and help-seeking behaviors among ethnic minority groups and Whites. These low utilization rates are characteristic of most Asian American groups regardless of gender, age, and geographic location and are not due to lower rates of mental disturbance. Part of the service use problem is also represented by delays in help seeking until the severity of a mental health problem is high and by a greater likelihood of choosing informal, alternative, or medical service providers rather than mental health professionals. The Supplement also identified im-

portant cultural factors that act as deterrents to service use, such as stigma, shame, and a lack of service providers who speak Asian languages.

Data from the past decade of research are similar to the findings reported in the Supplement and show that mental health service underutilization remains a problem across Asian American groups. Le Meyer, Zane, Cho, and Takeuchi (2009) examined utilization rates among the NLAAS sample, focusing on Asian Americans with a probable diagnosable disorder on the basis of *DSM-IV* criteria. Among this sample, Le Meyer et al. found that only 28% used specialty mental health services (in contrast to 54% in the general population), 16% used primary care services, and 11% used alternative services to address their mental health concerns. Also similar to findings from previous research, Asian Americans still seek services from general medical service providers or nonprofessional sources more than from mental health professionals to address their mental health concerns. For example, Chu, Hsieh, and Tokars (2011) found that Asian Americans with suicidal ideation or attempts seek help from nonprofessional sources or medical professionals rather than mental health professionals. In addition, Abe-Kim et al. (2007) examined utilization rates among the NLAAS sample and found that among all 2,095 Asian American respondents, 8.6% sought help from “any” service (both general medical services and specialty mental health services), 4.3% sought help from general medical providers, and 3.1% sought help from mental health providers. For those who needed services (those diagnosed with a probable mental disorder within the past 12 months), Abe-Kim et al. found that only 34.1% utilized services, compared with 41.1% in the general population (Wang et al., 2005). Moreover, generational status was positively associated with service utilization and perceived helpfulness of treatment. For example, among those with a probable disorder diagnosis, third-generation or later Asian American respondents sought help from any services at significantly higher rates (62.6%) than did first-generation (30.4%) or second-generation (28.8%) Asian American respondents (Abe-Kim et al., 2007, p. 93). These results indicate that although nativity and later generational status may be positively associated with mental disorder among Asian Americans, these individuals may also be more willing to seek treatment when they experience symptoms of mental disorder.

According to the 2010 NSDUH, rates of past-year utilization of mental health services for adults 18 and older were as follows: Asian Americans, 5.3%; Hispanics, 7.9%; African Americans, 8.8%; and non-Hispanic Whites, 16.2% (SAMHSA, 2012). The significantly lower rates for Asian Americans were consistently demonstrated each year for the past decade. Because the 2010 NSDUH also estimated the prevalence of mental disorders among various ethnic minority groups, it was possible to test an alternative explanation for the rates of utilization—namely, that Asian Americans show low utilization of services because they have low rates of mental disorders. To calculate utilization rates after controlling for rates of disorders, we divided the utilization rate by the disorder rate for various groups.

Results indicated that Asian Americans (34%) were still more likely to underutilize services given their respective prevalence rate for disorders than were Hispanics (43%), African Americans (45%), and non-Hispanic Whites (79%). Calculations were not possible for American Indians/Alaska Natives because of missing data.

Findings from research in the past 10 years have also replicated previous knowledge concerning factors that predict service use. A delay in recognizing symptoms and in seeking help, stigma and shame over using services, lack of financial resources, conceptions of health and treatment that differ from those underlying Western beliefs, cultural inappropriateness of services (e.g., lack of providers who speak the same languages as clients with limited English proficiency), and the use of alternative resources within the AA/PI communities have repeatedly been found to serve as barriers to help-seeking behavior (e.g., Le Meyer et al., 2009). Ting and Hwang (2009), for example, found that an inability to tolerate stigma was negatively associated with help-seeking attitudes, even after controlling for other variables often associated with help seeking. Moreover, Kim and Omizo’s (2003) study of college students revealed an inverse relationship between adherence to Asian cultural values (which emphasize concern with saving face, Zane & Yeh, 2002) and willingness to see a counselor. These results were observed even after controlling for the effects of gender, age, generational status, and previous counseling experience.

Complementing existing knowledge is new information about the complex role played by immigration and acculturation-related factors in choosing service providers. Abe-Kim et al. (2007) compared service utilization rates among immigrant and U.S.-born Asian Americans to examine how immigration-related factors (e.g., nativity status, years in the United States., English proficiency, age at time of immigration, and generational status) were associated with service utilization among the NLAAS sample. Interestingly, number of years spent in the United States (among immigrant Asian Americans) and level of English proficiency were not associated with service use. However, Le Meyer et al. (2009) found that among both the U.S.-born and immigrant Asian American samples, an interaction emerged such that the use of alternative services either facilitated or inhibited specialty mental health service use, depending on the individual’s English proficiency. Specifically, for those with poor or fair English language proficiency, alternative services seemed to compete with specialty mental health care. That is, individuals who used alternative services were less likely to use specialty mental health services. However, for those with good or excellent English proficiency, the use of alternative services increased the likelihood of utilizing specialty mental health services a great deal.

New knowledge also addresses the types of problems that initiate the decision to seek help. At one Asian-oriented mental health services center, depression was the primary reason for seeking mental health services among Asian Americans (Akutsu & Chu, 2006). Those groups with high proportions of refugees (e.g., Cambodians) were



especially likely to seek help for depression and somatic problems. Abe-Kim, Takeuchi, and Hwang (2002) used a prospective design to examine 56 Chinese Americans who sought help for emotional problems. Individuals experiencing high levels of family conflict had a higher likelihood of seeking both medical and mental health services, even after the authors controlled for the influence of traditional help-seeking factors. The results indicated that the presence of conflictual family ties led to help-seeking behaviors more than did the absence of supportive linkages between family members.

### **Summary: Do Asian Americans Seek Help?**

New research from the past decade shows that Asian Americans with mental health problems still do not seek out or receive the services they need. Unfortunately, despite the Supplement report's (DHHS, 2001) stated priority of eliminating mental health care disparities, reducing barriers, and improving access to mental health treatment, little progress has been made to eliminate the disparities in mental health service access for Asian American populations. Advances in knowledge from the past decade instead address new understandings about the conditions that prompt help seeking (e.g., depression and family conflict) and the role of acculturation-related factors in the likelihood of seeking help from different types of providers. We now turn to the issue of culturally competent services to examine whether service innovations in the past 10 years have provided the tools needed to reach Asian Americans who are reluctant to seek help. These innovations will be crucial to the goal of eliminating mental health care disparities among Asian Americans.

### **Promising Models for Cultural Interventions**

Decades of research noting mental health care disparities for Asian Americans have pointed to inadequacies in the existing landscape of mental health services. Clearly, at the time of the Supplement report (DHHS, 2001), the mental health system and its approaches were not effectively reaching an adequate proportion of Asian Americans in need of mental health assistance. As of 2001, several solutions had been pursued to address the problem of low service access. Some mental health service organizations targeted community education and outreach efforts to increase the acceptability of utilizing services, developed ethnic-specific programs, or increased the availability of bilingual staff (Chin, 1998; Chun & Akutsu, 1999).

Other solutions to the problem of service underutilization have since been explored. One particular limitation highlighted in the Supplement report pertained to limited evidence regarding treatment outcomes for Asian Americans. In response, since 2001, many investigators have directed attention to developing and increasing the availability of culturally competent treatments. Adaptations to evidence-based treatments have comprised the major innovation in culturally competent practice of the past decade.

In the zeitgeist of evidence-based practice, cultural psychologists recognized that treatments proven to work

with Caucasian populations may not be similarly portable or efficacious in ethnic minority populations such as Asian Americans. As a result, clinical scientists recognized the need to culturally adapt these treatments to make them understandable and effective for Asian American populations (e.g., Hall, 2001; Hinton, Pich, Chhean, Safren, & Pollack, 2006). Several promising efforts of cultural adaptation have emerged in recent years. For example, Hinton, Pich, et al. (2006) introduced a culturally sensitive cognitive-behavioral therapy (CBT) intervention to treat the somatic symptoms that often accompany PTSD among traumatized Cambodian refugees. Specifically, the authors described how several refugees experienced neck-focused panic attacks, a culture-bound syndrome in which traumatized individuals experience recurrent episodes of neck soreness, head symptoms (e.g., headache, tinnitus, blurry vision, and dizziness), and general symptoms of autonomic arousal (e.g., cold extremities, palpitations, and shortness of breath). The authors utilized a multiple-baseline, across-subjects design in which the three patients started therapy in subsequent intervals. The treatment consisted of 11 sessions of individual CBT administered by a bicultural worker blind to the patient's treatment status. The treatment provided information about the nature of PTSD and panic disorder, introduced muscle relaxation, guided cognitive restructuring of fear networks (especially trauma memory associations to catastrophic misinterpretations of somatic sensations), introduced interoceptive exposure to anxiety-related sensations, provided an emotional processing protocol to utilize during times of trauma recall, explored the physiological nature of neck panic, included exposure to and verbal recounting of trauma-related memories, and taught cognitive flexibility.

The treatment was culturally adapted in that it incorporated culturally appropriate visualization (e.g., visualizing a lotus bloom that spins in the wind at the end of a stem), which helped in encoding events within the Asian cultural value of flexibility. Similarly, it included framing relaxation techniques as a form of mindfulness, a key Asian cultural virtue. Results revealed that for all three patients, neck-focused panic and associated flashbacks decreased, as did other measures of psychopathology (e.g., depression and anxiety). Results also showed that improvement was related to the particular time of treatment implementation. All three patients displayed at least a 36% improvement in various forms of psychopathology (as measured by the Harvard Trauma Questionnaire) and a 37%–50% decrease in depression and anxiety scores.

Shen, Alden, Söchting, and Tsang (2006) described their clinical observations and experiences in implementing a Cantonese-language cognitive-behavioral treatment program to treat depressed Hong Kong immigrants in Vancouver, Canada. Like Hinton, Pich, et al. (2006), the authors chose to adapt a CBT intervention because CBT techniques have been suggested to be more compatible with Chinese values and preferences than have other Western psychotherapies. Patients were divided into groups: One group received treatment as usual

(TAU), which consisted of their established regimen of sessions with their family physicians or psychiatrists and often included antidepressant medication. The experimental group participated in the 10-week CBT program in addition to TAU. Results revealed that the CBT group displayed significantly more reduction of depressive symptoms than the TAU group on both self-report measures and on interview symptom severity indices. In fact, the effect size of the CBT group was about twice that of the TAU group.

Attempts have been made to guide the implementation of culturally competent services by developing models for such services. Leong and Lee (2006) formulated the cultural accommodation model (CAM). The purpose of this model was to provide an enhanced theoretical understanding of how to adapt treatments to serve the needs of culturally diverse clientele. CAM emphasizes the importance of (a) identifying cultural gaps in traditional Western psychotherapy's treatment of ethnically diverse clients, (b) accommodating for these "blind spots" by identifying cultural concepts that can make the theory or model more culturally valid, and (c) testing the revised model's incremental effectiveness above and beyond the original "non-accommodated" model.

The formative method for adapting psychotherapy (FMAP; Hwang, 2009) presents an alternative model to guide the cultural modification process. The FMAP is a community collaborative approach that incorporates input from mental health providers and consumers in a bottom-up philosophy. The FMAP consists of five phases: (a) generating knowledge and collaborating with stakeholders, (b) integrating generated information with theory and empirical and clinical knowledge, (c) reviewing the initial culturally adapted intervention with stakeholders and revising the intervention, (d) testing the intervention, and (e) finalizing the culturally adapted intervention. Hwang (2009) successfully utilized the FMAP procedure to create a culturally adapted CBT manual for Chinese Americans. Chu, Huynh, and Areán (2011) also utilized the FMAP procedure to adapt an evidence-based treatment, problem solving therapy, for depression in Chinese older adults.

There is emerging evidence that cultural adaptations to treatments are beneficial. In a meta-analysis of over 70 research studies that have examined ethnic or culture-specific forms of intervention, Griner and Smith (2006) found a moderate effect for treatments that were adapted to better serve the needs of specific ethnic groups (the average effect was  $d = .45$ ). Interventions that were adapted toward a specific ethnicity were four times as effective as those that were not. Linguistic match was found to be twice as effective as treatment conducted in English for clients whose English language abilities were poor. In addition, in a review of research studies on cultural competency, Sue, Zane, Hall, and Berger (2009) concluded that culturally adapted interventions provided beneficial effects that extended above and beyond those produced by TAU.

## **Summary: Are Mental Health Services Appropriate to the Needs of Asian Americans?**

What is clear from the extensive evidence pointing to the underserved needs of Asian Americans is that new innovations are needed to reach a greater proportion of Asian Americans with mental disorders. Improving the appropriateness of services for Asian Americans will likely involve a multipronged effort. Language-matched providers, ethnic-specific programs, and general training on how to be culturally competent during psychotherapy were predominant efforts to increase service access and use prior to the writing of the Supplement (DHHS, 2001). In the past decade, new innovations in developing appropriate services have resulted in culturally adapted treatments or psychotherapy options tailored to the specific needs of particular ethnic minority groups. Progress in the cultural adaptations of psychotherapy treatments for Asian Americans has proved promising. Yet research on cultural adaptations is still in a nascent stage, and further innovations are needed to address the problem of service underutilization that persists. One important area for future investigation is to specify what needs to be customized in culturally competent treatments. To gain insights in how to identify needed cultural adaptations, Cardemil (2010) suggested that different cultural groups be compared not only on the efficacy of treatment but also on the acceptability of treatment (e.g., acceptance of treatment rationale, therapeutic alliance, and general satisfaction with treatment). Failure to demonstrate equivalent efficacy and acceptability would suggest that adaptation is needed and the type of modification that would be beneficial.

One may be tempted to raise the question of whether services should be the focus of attention, if indeed, Asian Americans have low rates of mental disorders and low service utilization rates. Our position is that because of methodological and conceptual issues, the prevalence of mental disorders among Asian Americans is still an open question that must be further examined. Furthermore, low service utilization, whether attributable to personal reluctance, misunderstanding of its value, or cultural inappropriateness of services, is unfortunate. It means that a major resource is limited in its effectiveness in treating mental disorders and promoting emotional well-being. As services become more culturally sensitive, effectiveness and utilization tend to increase (Sue et al., 2009).

## **Conclusions**

This article highlighted advances and illuminated gaps in the knowledge gained about the mental health of Asian Americans in the past decade with regard to need for services, utilization of services, and appropriateness and outcomes of these services. We found that there are now important new epidemiological data, enhanced understanding of predictors of help seeking, and promising data on culturally adapted psychotherapy treatments. Mental health services still largely fail to reach Asian Americans in need of assistance. However, some innovations have been de-

veloped to reach out to Asian Americans and have yielded promising results. In addition, further research is needed that focuses on the establishment of valid measures for Asian Americans and that addresses cultural considerations in symptom reporting bias and conceptualization of mental disorders.

We call for innovation over the next decade to advance our knowledge about the state of Asian American mental health, to decrease mental health care disparities, and to create services appropriate to the mental health needs of Asian American communities. Several recommendations will facilitate achievement of these goals:

1. Increased resources and efforts should target the epidemiological study of mental disorders in subgroups of Asian Americans that have been inadequately sampled (e.g., Hmong, Iu Mien, and Pacific Islanders).

2. Special attention is needed to understand and manage clinical problems known to be more prevalent in certain Asian American subgroups: suicide among Asian American older women and PTSD in Southeast Asian refugees.

3. To increase our ability to make definitive conclusions about the state of Asian American mental health, future research should:

a. Modify assessment procedures to account for cultural variations in symptom expression and to determine how to account for culture-bound disorders, when approximating the mental health needs of the Asian American population.

b. Identify and quantify the underlying moderating factors (e.g., stigma, shame, emotion inhibition) that affect Asian Americans' tendency to disclose more, to disclose less, or to disclose in a certain reporting pattern, in order to better predict the accuracy of self-report.

c. Examine possible systematic errors or biases that may account for convergent findings of low prevalence rates among Asian Americans. For example, reporting tendencies for Asian Americans should be analyzed using different assessment methodologies to yield insights about the underestimation, accurate estimation, or overestimation of psychopathology among existing epidemiological survey studies. Quantitative and qualitative research approaches should both be used.

4. Scientists and clinicians should focus on innovative solutions to decreasing mental health care disparities in Asian American communities. Strategies that increase service use among Asian Americans will need to address barriers to help seeking (e.g., delay in recognizing symptoms and seeking help, stigma and shame over using services, lack of financial resources, non-Western conceptions of health and treatment, use of alternative resources, and lack of language-proficient providers). Community-level or cross-disciplinary collaborations may be necessary to effectively reach Asian Americans who are reluctant to seek specialty mental health care.

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# From Documenting to Eliminating Disparities in Mental Health Care for Latinos

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*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

**T**he 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

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*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).

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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-



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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.<sup>1</sup> 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

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





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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.

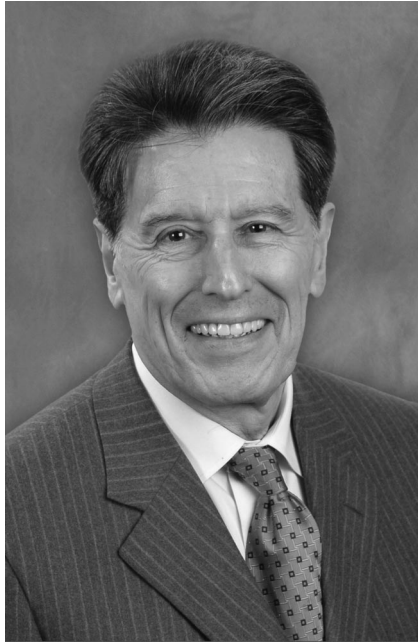
Follow-up analyses indicated that patients' ethnicity moderated the treatment effects (Miranda et al., 2003). First, the quality improvement interventions increased the level of appropriate care for the three groups—Latinos, African Americans, and non-Latino Whites. The effects on clinical functioning (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).<sup>2</sup> 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

<sup>2</sup> 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.



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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 evidence-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.

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