REVIEW ARTICLE

Psychopathology Among Asian Americans: A Model Minority?

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The prevalence of psychopathology among Asian Americans has been a source of debate. Some investigators believe that the prevalence rate is quite low, whereease others argue that it is fairly high. A review of the literature suggests that at this time, it is not possible to determine the specific rates of psychopathology. However, evidence does suggest that their rates of mental disorders are not extraordinarily low. Thus, public portrayals of Asian Americans as a well-adjusted group do not reflect reality. Attempts to determine the exact prevalence rates have been hindered by characteristics of the Asian American population, particularly its relatively small size, heterogeneity, and rapid changes in demographics. It is suggested that aggregate research, in which different Asian American groups are combined, is important for policy considerations, broad cultural comparisons, and establishing baseline information. To advance scientific contributions and understanding, studies that examine the correlates and course of disorders within specific Asian American groups are necessary as well. © 1995 John Wiley & Sons, Inc.
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For over three decades, considerable controversy has existed over the mental health of Asian Americans. To some individuals, Asian Americans are seen as being extraordinarily well adjusted, as demonstrated by achievements in occupational, educational, and economic spheres. This view is supported by references to low rates of criminal activity, juvenile delinquency, and divorce. Asian Americans also tend to be physically healthier than other Americans and have longer life expectancies. On the other hand, some investigators argue that mental health and adjustment problems do exist. These problems are often masked by cultural or familial practices, as well as a stereotypic view of Asian Americans. In addition, particular segments of the Asian American population are at particular risk for mental distress (S. Sue & Morishima, 1982).

In this article, we do not intend to settle the debate about the prevalence of mental disorders among Asian Americans, nor do we want to reiterate the various methodological and conceptual problems encountered when conducting valid cross-cultural assessments (e.g., difficulties in achieving translation, stimulus, conceptual, and scalar equivalence on assessment instruments for culturally different populations). Rather, our intent is to apply the research on psychopathology to broader issues involving policy and science. Several arguments are made:

1. Much variability exists in research findings regarding the prevalence of psychopathology
2. It is not possible at this time to specify the prevalence of disorders among Asian Americans, but public stereotypes concerning their extraordinary adjustment are inaccurate
3. The variability and indeterminant nature of the research findings are a function of the heterogeneity of the population, its relative small number, and changing demographics
4. We must distinguish between contributions to policy and to science
5. Research on the aggregate group, that is, combining Asian American groups, is useful and should not be abolished because it can yield policy implications, baseline information, and broad cultural comparisons
6. Science will be more enhanced by specific research than by aggregate research.

Let us begin by reviewing research on the mental health of Asian Americans.

Treated Cases

Early research on Asian Americans examined their use of treatment services. Investigators consistently found that Asian Americans failed to use mental health services in the same proportion to their population, as did Whites (Leong, 1986). This comparative failure to use services was called *underutilization.* The implications is that Asian Americans were not using services when they needed to. Is it possible that this population is relatively better adjusted than other populations, so that greater utilization of services is unnecessary? In general, every population underutilizes in the sense that not all individuals with psychological disturbance seek help from the mental health system. For example, the Epidemiologic Catchment Area (ECA) study, which compared the prevalence rate of mental disorders with the use of mental health care services, revealed that the vast majority of afflicted individuals did not seek treatment (Shapiro et al., 1984). The real question, therefore, is whether or not Asian Americans with psychiatric disorders have a greater propensity than other populations to avoid using services. In the absence of information on prevalence rates, considerable indirect evidence suggests that Asian Americans are less likely than the general population to use services. Research

findings have revealed that few Asian Americans seek mental health treatment and those who do use services exhibit a greater level of disturbance within the client population (S. Sue & Morishima, 1982). A reasonable explanation is that only the most disturbed Asian Americans tend to seek services. Asian Americans who show a moderate degree of disturbance are thus more likely than are comparable White Americans to avoid using services.

The phenomenon of low utilization coupled with severe disturbance among users suggests that moderately disturbed Asian Americans, who may be in need of services, are not seeking treatment. Therefore, attempts to ascertain the actual prevalence rates of psychopathology should not be based solely on clinical samples. Rather, community-based prevalence studies are necessary to provide a clearer picture of the rates of mental illness among Asian Americans.

Epidemiological Surveys

Within the past decade, results from rigorous, large-scale epidemiological studies have suggested that the prevalence of mental disorders in the U.S. is quite high. The ECA study indicated that nearly 20% of the American population experienced a mental disorder currently or within the past 6 months (Myers et al, 1984; Robins & Regier, 1991). Findings from the National Comorbidity Survey (NCS) by Kessler et al. (1994) revealed that nearly 50% of the interviewed respondents, aged 15 to 54 years, reported at least one lifetime disorder, and close to 30% reported at least one disorder within 12 months of the interview.

In a review of the literature on the mental health of various ethnic minority groups, Vega and Rumbaut (1991) noted that knowledge pertaining to Asian Americans is much less developed than that for African Americans and Latinos. In addition, no national level epidemiological surveys have been conducted. However, epidemiological surveys of the prevalence of psychopathology are available concerning Asians in other parts of the world. These findings may be instructive by helping us to place data on Asian Americans in perspective. Furthermore, the overseas studies have been conducted using relatively large samples of respondents in contrast to the small sample sizes of Asians in the U.S.

Psychopathology in Asian Countries

In general, research on Asians in different parts of the world also reveals significant mental health problems. For example, a major survey was conducted of nonpsychotic disorders in Singapore sponsored by the Singapore Association for Mental Health (1989). The survey was based on 1,153 adults between the ages of 21 to 55 years. The General Health Questionnaire (GHQ) was used to ascertain mental health because the instrument had been used in previous studies to establish the prevalence of minor psychiatric morbidity. Results revealed an 18% point prevalence rate for these disorders, indicating a fairly high rate of disturbance.

Several epidemiological studies have been conducted in Taiwan. Using the GHQ, Cheng (1985) found a prevalence rate of 26% for mental disorders. In a more recent study, Hwu, Yeh, and Chang (1989) used the Diagnostic Interview Schedule (DIS) to assess prevalence rates among 11,000 respondents, aged 18 years and over. Results revealed rates that were slightly lower than those found in the U.S. These cross-national differences in rates may be real. On the other hand, they noted that cross-national comparisons are difficult to make. The types of disorders that are assessed may differ from study to study. In the Hwu et al. study, generalized anxiety disorders were included but were not assessed in the ECA project in the U.S., and the study used different exclusion criteria from those employed in the U.S. project.

A major epidemiological study of mental disorders was also conducted in Korea (Lee et al., 1990a, 1990b). The DIS was administered to over 5,000 respondents. Findings revealed that the overall lifetime prevalence rates were lower than those found in the U.S., except for alcohol abuse/dependence, which was much higher among Koreans than Americans (primarily attributable to heavy drinking among men).

In mainland China, the results of a large-scale epidemiological survey were reported in the *Chinese Journal of Neurology and Psychiatry* (1986). Twelve regions of China and about 38,000 respondents were included in the survey. Interestingly, the overall rates of mental disorder (e.g., shizophrenia, substance abuse, "neuroses," and personality disorders) were fairly low compared to those found in the U.S. Nevertheless, every type of mental disorder was found in all segments of the population. In a representative sample of Hong Kong residents, Lau and Mak (1992) estimated the prevalence of psychological ill health to be 18–26% using the GHQ.

Based on these studies, it is apparent that prevalence rates for Asians outside the U.S. vary. Some investigations have found the rates to be similar to those in the U.S., whereas other studies show lower rates. Obviously, cross-national comparisons are fraught with potential problems and confounds. Various groups or populations may manifest different symptoms for the same disorders, exhibit culture-bound syndromes, have different distributions of disorders, and so on. For example, neurasthenia or chronic fatigue syndrome is more commonly found among Asians than Americans; and some culture-bound syndromes, such as *amok* and *koro,* are fairly unique to some Asian cultures (Cheung, 1986). In addition, the differences in the nature and rates of disorders may be attributable to cultural variations, presence of stressors and resources, or gene pools that are associated with a particular society. However, the different prevalence rates may also be caused by investigations that vary in their conceptual assumptions, methodologies, and measures. Furthermore, the cross-cultural validity of diagnostic and assessment procedures is a central issue in studying the rate and distribution of mental disorders among Asians. If case-finding strategies or assessment procedures are inappropriate or culturally biased, then it is difficult, if not impossible, to estimate accurately the prevalence of disorders.

From these studies of overseas Asians, what implications can be drawn for Asians in the U.S.? First, there is no reason to believe that being Asian is associated with significantly low rates of mental disorders and, therefore, that Asians coming to the U.S. are less prone to developing these disorders. Second, Asian Americans are likely to be different from their overseas counterparts. Those who emigrate to the U.S. are not representative of those who remain (some come from educated, upper classes, whereas others have led impoverished lives in their homelands and fled to the U.S. for better opportunities). Immigrants and refugees encounter unique experiences in the U.S., such as exposure to different cultural values, English proficiency problems, minority status including racial/ethnic stereotypes, prejudice, discrimination, and a reduction in available social supports. In turn, these experiences can alter the stress-coping formulas for immigrants to the U.S.

Indeed, one might speculate that Asian Americans might be under considerable stress because of these experiences. What do the empirical findings reveal? Again, large-scale and rigorous epidemiological studies have not been conducted on Asian Americans. Under such circumstances, one must form conclusions based on the preponderance of evidence. Until recently, the findings seemed to converge. They revealed that the prevalence of disorders among Asian Americans was as high as, or even higher than, those of other Americans: findings that were inconsistent with the general

stereotypes concerning Asian well-being. The studies of Asian Americans cover broad periods of time, starting from the 1970s to the present.

Many of the available surveys appear to indicate that significant numbers of Asian Americans are experiencing mental and emotional problems. From their interviews of adult residents in a large Chinatown community, Loo, Tong, and True (1989) found that over 33% of their sample reported symptoms of emotional tension. Feelings of depression were also common among the residents, with 40% complaining of a "sinking feeling like being depressed." Additionally, 25% of the residents admitted to having "periods of days, weeks, months when [they] couldn't take care of things because [they] couldn't get going." Finally, Loo et al. reported that 35% of the respondents endorsed four or more items on the Langner Scale, whereas 20% acknowledged seven or more items. Such endorsement rates on the Langner Scale have traditionally been considered as indications of psychiatric impairment. The two most frequently endorsed Langner items included "a memory that's not alright" (40%) and "worrying a lot" (42%). Self-reported impairment among the Chinese was generally as high as, or higher than, that found in the Midtown Manhattan study, which used the same scale (Srole). Although the sample is not representative of general Chinese American populations, the study points to the levels of distress in the ethnic Chinese enclave.

Several studies have examined the rates of depression among Asian Americans using the Center for Epidemiology Studies of Depression (CES-D). Interviewing Asian Americans located through directories, organizations, and snowballing techniques in Seattle, Kuo (1984) found that Chinese, Japanese, Filipino, and Korean Americans on average reported slightly more depressive symptoms than did Caucasian respondents in other studies. Kuo and Tsai (1986) presented several interesting findings in their study of Asian immigrants who resettled in Seattle. These researchers found that the Koreans, the most recently arrived immigrants, exhibited twice the rate of depression found among the Chinese, Japanese, and Filipino groups under investigation. Immigrants who moved to the U.S. at an earlier age experienced fewer adjustment difficulties. With respect to social support, immigrants who reported having friends available for frank discussions, or available relatives in one's residential area, exhibited less depressive symptoms than those who lacked such a wide social network. Finally, Kuo and Tsai asserted that immigrants with "hardy" personalities reported less stressful life events, financial worries, adjustment difficulties, and symptoms of depression than those who lacked hardy traits. Essentially, hardy Asian immigrants, or those who felt a sense of control over their life events, maintained a strong commitment to their life activities, perceived change as an exciting opportunity for personal development, and were more likely to display positive adjustment to their new American lifestyles.

Using the CES-D, similar findings of prevalence rates were reported by Hurh and Kim (1988). Korean immigrants residing in Chicago (from a Korean directory) had higher scores for depression than did the Chinese, Japanese, and Filipinos in Kuo's (1984) study. High rates of depression were also revealed in a telephone survey of Chinese Americans located in the telephone directory in San Francisco. Using the CES-D, Ying (1988) found the Chinese Americans to be significantly more depressed than the Chinese Americans in Kuo's (1984) study.

Special Populations: Refugees

Certain groups such as Southeast Asian refugees and immigrants have extremely high levels of depression and other disorders (Westermeyer, 1988). Studies have also consistently shown that Southeast Asian refu-

gees constitute a high-risk group for mental disorders. Kinzie et al. (1990) reported that 70% of their overall Southeast Asian refugee patient sample met *Diagnostic and statistical manual for mental disorders (DSM–III–R;* American Psychiatric Association, 1987) criteria for a current diagnosis of posttraumatic stress disorder (PTSD) and 5% met criteria for a past diagnosis. This elevated incidence of PTSD was even more alarming when group differences were analyzed. In this case, PTSD was diagnosed in 95% of the Mien sample (a highland tribe from Laos) and 92% of the Cambodian sample. The clinical significance of these findings is striking because most of these PTSD sufferers had experienced their traumatic events 10 to 15 years prior to assessment. Last, Kinzie et al. (1990) found that 82% of their overall sample suffered from depression, the most common non-PTSD diagnosis, whereas approximately 16% had schizophrenia.

Similar results were obtained by Mollica, Wyshak, and Lavelle (1987). About 50% of their Southeast Asian refugee patients fulfilled *DSM–III* (American Psychiatric Association, 1980) criteria for PTSD and 71% suffered from major affective disorder. Certain groups had even higher prevalence rates. The Hmong/Laotian group exhibited the highest rates at 92% for PTSD and 85% for major affective disorder, whereas 57% and 81% of the Cambodians suffered from PTSD and major affective disorder, respectively.

Westermeyer (1988) conducted a point prevalence study of adult Hmong refugees, a rural and agrarian people from Laos, and found that 43% met *DSM–III* criteria for various Axis I diagnoses such as adjustment disorder, major depression, and paranoia. Westermeyer emphasized that despite the relatively small sample (N = 97), the high rate of Axis I diagnoses exhibited by these refugees—twice the expected rate for the general U.S. population—points to the high degree of psychopathology that is likely to occur in Southeast Asian refugee groups.

The elevated prevalence rates of psychopathology in the Southeast Asian refugee community have been linked to repeated exposure to catastrophic environmental stressors such as torture, combat, witnessing the death of family members and friends, and forcible detainment in harsh refugee camp conditions. For example, Mollica et al., (1987) noted that patients in their refugee sample reported an average of 10 traumatic episodes. It also appears that the negative effects of premigration trauma on adjustment may persist over time. In a study of Cambodian adolescents who survived Pol Pot's concentration camps, Kinzie, Sack, Angell, Clarke, and Ben (1989) found that 48% suffered from PTSD, and 41% experienced depression approximately 10 years since their traumatization.

Students

As noted by Leong (1986), studies of college students also suggest that Asian Americans experience major adjustment problems. The first studies on the adjustment of Asian American students were conducted by D. Sue and Frank (1973), and D. Sue and Kirk (1973, 1975) at the University of California, Berkeley. Results based on the Omnibus Personality Inventory (OPI) suggested that Asian Americans were more likely than were White students to experience loneliness, isolation, and anxiety.

S. Sue and Zane (1985), who also used the OPI, reported similar adjustment difficulties for a sample of recently immigrated Chinese students who spent 6 or fewer years in the U.S. These researchers found that the immigrant Chinese students were less autonomous and extroverted, and more anxious than Chinese students who had lived longer in the U.S. Interestingly, however, the academic achievement levels of the foreign-born students exceeded those of the general student body. S. Sue and Zane thus cautioned that academic performance should not be used as an indicator of psychological

well-being or adjustment for newly arrived Chinese college students. Although the study did not use a comparison non-Asian group, the scores from the Chinese American students were highly similar to those found among Asian American students in the Berkeley study, which did reveal greater disturbance among Asians than non-Asians.

Recently, Okazaki (1994) compared the responses of Asian and White American college students on various measures of depression and anxiety. Results revealed that the Asian American students reported higher levels of depression and social anxiety.

In another investigation, Abe and Zane (1990) found significant differences between Whites and foreign-born Asian American college students on a measure of psychological maladjustment. Results demonstrated that foreign-born Asian Americans reported greater levels of interpersonal distress than their White counterparts, even after controlling for demographic differences as well as the influences of social desirability, self-consciousness, extraversion, and other-directedness (i.e., being attuned to the desires and needs of others). These results are especially interesting given that the foreign-born Asian Americans in the sample had resided in the U.S. for an average of 10 years. Abe and Zane proposed that the various stressors faced by many foreign-born Asian Americans, such as language barriers and the loss of social support networks, may have long-term negative effects on psychological adjustment.

Keefe, Sue, Enomoto, Chao, and Durvasula (in press) completed a study of ethnic differences on the MMPI–2 in relation to acculturation. In general, less acculturated Asian American students showed greater elevation on the clinical scales of the MMPI–2 profile than did highly acculturated Asian American students or White students. Highly acculturated Asian American students had greater clinical elevations than their White counterparts. Significant group differences emerged on the Hypochondriasis, Depression, Psychopathic Deviate, Paranoia, Psychasthenia, Schizophrenia, and Social Introversion subscales: Less acculturated Asian American and White students generally fell at the extremes, with the more acculturated Asian American students positioned in the middle of the scale scores.

The results also demonstrated that Asian American students—regardless of their acculturation level—had more somatic complaints, were more depressed and anxious, and felt more often isolated than Whites. Moreover, less acculturated Asian Americans most often perceived their environment as unsupportive. These findings may reflect a cultural response bias among Asian Americans. However, the possibility cannot be ruled out that the results may simply reflect that Asian Americans as a minority group experience greater difficulties in their daily lives, which results in greater disturbance than found among Whites. It is precisely this inability to distinguish between a strict cultural response set interpretation and a minority group-stress interpretation that makes it imperative to conduct further studies into the validity of assessment measures with Asian Americans.

All of these various studies (on students, refugees and immigrants, Chinatown, and community residents) go beyond suggesting that Asian Americans are not a model minority in terms of mental health. They support a more drastic conclusion, namely, that Asian Americans have poorer mental health than do Whites. Before considering this statement, it should be noted that some more recent studies suggest that Asian Americans may indeed be better adjusted.

Chinese American Psychiatric Epidemiological Study

The Chinese American Psychiatric Epidemiological Study (CAPES) is undoubtedly the most rigorous and large-scale investigation of any Asian group in the U.S. to date. The project is a 5-year community epidemiological study investigating the mental health

problems and needs for mental health services among Chinese Americans. The study has two specific aims: (a) to estimate the prevalence rates of selected mental disorders among Chinese Americans; and (2) to identify the factors associated with mental health problems among Chinese Americans. This study obtained 1,700 completed household interviews with Chinese Americans residing in Los Angeles county. Follow-up interviews with the same respondents will be conducted 1 year later, which will allow the unprecedented opportunity to note changes in mental health and the factors associated with changes. The target population for the study includes Chinese immigrants and native-born residents of the U.S. The study is limited to adults (> 18 years old) who speak Cantonese, Mandarin, or English. Cantonese and Mandarin are the most common Chinese dialects. The research used a multistage sampling procedure to select respondents. The respondents were presented with an interview instrument that included the following components: (a) sociodemographic information including age, gender, educational level, household income, number of household members, year of immigration, country of origin, marital status, education, and English proficiency; (b) Composite International Diagnostic Interview (CIDI) questions related to mood, anxiety, somatic disorders, alcohol use, PSTD, neurasthenia, and chronic fatigue; (c) SCL–90; (d) questions related to stressors including major life events and daily hassles; (e) information on social support, personality, and hardiness; (f) queries concerning help-seeking behaviors and utilization of mental health services; and (g) acculturation questions.

Preliminary Results Regarding Lifetime Prevalence

Table 1 shows the lifetime prevalence rates found in the CAPES project compared to the ECA (Robins & Regier, 1991) and NCS (Kessler et al., 1994) findings. The comparison involves only mood and anxiety disorders, which are among the most common disorders in the U.S. It should be mentioned that the studies used different sample weightings and procedures.

TABLE 1 Lifetime Prevalence Rates in Different Studies (%)

	ECA	*NCS*	*CAPES*
Manic	0.8	1.6	0.1
Major depression	4.9	17.1	6.9
Dysthymia	3.2	6.4	5.0
General anxiety disorder	—	5.1	1.7
Agoraphobia	5.6	5.3	1.6
Simple phobia	11.3	11.3	1.1
Social phobia	2.7	13.3	1.2
Panic disorder	1.6	3.5	0.4
Panic attack	1.5	—	0.7

Note. ECA = Epidemiological Catchment Area; NCS = National Comorbidity Survey; CAPES = Chinese American Psychiatric Epidemiological Study.

The preliminary results are contrary to the findings of the studies reviewed earlier. Chinese Americans in the CAPES project did not have higher rates of mental disorders than Whites. Although it can be argued that the rates of mood disorders among Chinese Americans are within the bounds of other Americans, the rates for anxiety are surprisingly low. These preliminary findings thus reveal somewhat low rates of psychopathology. Initially, one is tempted to dismiss the findings because many other studies have demonstrated high rates of mood and anxiety problems. However, the CAPES project is the most rigorous, carefully conducted, and comprehensive epidemiological survey, employing the largest number of respondents ever found in a mental health survey of any Asian American group. Its findings must be taken seriously. Before discussing the implications of the CAPES project, let us cite other recent studies that point to low rates of psychopathology among Asian Americans.

Sasao (1992) examined the use of alco-

hol, tobacco, marijuana, and cocaine among different Asian groups. In order to decrease problems involving estimation error when only one data source is used, he employed multiple methods, which included telephone surveys, community forums, archival data analysis, and service utilization statistics. The telephone survey involved 1,783 community residents of Chinese, Japanese, Korean, Filipino, and Vietnamese descent in California. Substance use (including alcohol, cigarettes, marijuana, and cocaine) revealed in the telephone survey was generally below that of other groups in the U.S. The low rates of substance use were also supported by other indicators. For example, in the archival study of California state records, Asian Americans exhibited low mortality rates due to alcohol- and drug-related causes (the 2% rate was far lower than those of other groups). Asian Americans also had extremely low arrest rates for felony and misdemeanor drug offenses (0.3%). Few individuals used services for drug or alcohol problems.

Sasao also conducted a survey of about 1,000 high school students in the San Gabriel valley of California, which has a high proportion of Asians. Asian Americans had the lowest drug use compared to Latinos, non-Hispanic Whites, and other students. The results from the CAPES and the substance use projects, which are quite advanced and sophisticated, dramatically differ from the findings of the other studies reviewed. Can we make sense of this? Is the model minority image being revived? On the one hand, it is difficult to compare the studies due to their contrasting research methods. For example, one might argue that the studies using self-report measures reveal more psychopathology than do interview procedures. Another possible explanation is that Western-derived measures may have questionable cross-cultural validity. The conflicting results are therefore difficult to interpret. The concern over the validity of measures used with Asian Americans is obviously important. Yet, the epidemiological studies from Asian countries that were cited earlier have all used Western-derived instruments, and the findings appear to be generally satisfactory. We believe, therefore, that the most fundamental problem in Asian American research is not the construction of valid measures, rather, it is the nature of the population.

The Fundamental Problem

What is the nature of the Asian American population? It is small, diverse, and ever changing. Asian Americans represent only about 3% of the U.S. population (in contrast to the world's population, which is about 60% Asian). Consequently, researchers have had a difficult time finding adequate sample sizes and representative samples of Asian Americans. In many studies, convenience samples are used, often from quite different sources. For example, they may be drawn from lists of Asian ethnic organizations, names suggested by other respondents (the snowballing technique), universities rather than communities at large, and so on. Our estimates of the prevalence of psychopathology may conflict because they are based on different kinds of samples. It truly is similar to the situation of trying to imagine what an elephant looks like based on isolated and limited views of its legs, tail, trunk, and ears.

The Asian American population is also extremely diverse and heterogeneous. More than 50 distinct ethnic groups (including Pacific Islander Americans), speaking more than 30 different languages, are included in the Asian American category. Even if we focus on one particular group, the heterogeneity is problematic and not encountered to the same extent by Asians in their homeland. For example, the Chinese American population is far more diverse than the Chinese population in overseas parts of the world. Chinese in the U.S. are composed of both native-born and foreign-born individuals who come from mainland China, Taiwan,

Hong Kong, Singapore, Vietnam, and so on. Chinese Americans speak many dialects and languages, are exposed to American values, and are members of a minority group. All of these factors produce a very heterogenous population. We are not implying that Chinese in mainland China lack diversity; rather, it is apparent that Chinese diversity is much greater in the U.S. The same is true of nearly all Asian American groups: Greater heterogeneity exists for their group in the U.S. than in their homeland. This is an important point to understand. It means that measures (such as the MMPI–2) that have been validated with Chinese in China may not have good validity for Chinese in the U.S. Furthermore, if great diversity exists among Chinese Americans, by combining all Asian American groups we must prepare ourselves for methodological and conceptual headaches. We often feel obligated to remind others that diversity and heterogeneity exist because we want to avoid stereotypes of Asian Americans. An equally important consideration is that this same heterogeneity is playing havoc with our ability to draw conclusions or make generalizations.

There is nothing intrinsically wrong about trying to study a diverse population. In fact, heterogeneity is often essential for definitive research. Triandis and Brislin (1984) argued that having diverse or heterogenous groups can yield significant benefits in terms of increasing the range of variables to study. For example, suppose we wanted to see how achievement test scores are related to academic grades, but only had students who had higher scores on the test. We cannot adequately test the relationship because we do not also have students who scored poorly, a range-restriction limitation. A full range of scores is necessary. Thus, heterogeneity can be beneficial and even critical to address fully the proposed question. The problem confronting Asian American researchers is that the heterogeneity exists within a relatively small population. Outcomes from research investigations are then highly dependent on the particular samples drawn, and findings may fluctuate widely.

Finally, the Asian American population is undergoing rapid change relative to other populations. The Asian American population has doubled in size each decade for about the last three decades. The composition has changed, too. Whereas Japanese Americans were the largest group of Asian Americans a couple of decades ago, they are now outnumbered by Chinese and Philipino Americans. Today, the Asian American population is predominantly overseas born, in contrast to the situation three decades ago. These demographic changes are likely to produce different prevalence rates. Because of the traumas faced by Southeast Asian refugees and their relatively recent entry into the U.S., prevalence rates for mental disorders among Asian Americans have dramatically changed.

In sum, there are some very good reasons why researchers have a difficult time ascertaining the prevalence of mental disorders among Asian Americans and why findings may be inconsistent. The relatively small size, heterogeneity, and changing demographic characteristics of the population pose more basic difficulties in research than do problems of measurement.

Implications of the Problems

Criticisms over the heterogeneity of Asian Americans often lead to the conclusion that one should never combine Asian American groups or compare the aggregate group with Whites. Such a conclusion is mistaken and premature. After all, social scientists often make broad statements about "human" behavior and devise theories that are intended to cover all human beings. If we make an error in overgeneralizing by discussing Asian Americans, the magnitude of error is certainly not as great as the case of scientists who talk about human nature. The main issue is drawing the right conclusions from aggregate research. Aggregate re-

search is important and meaningful but fraught with potential dangers, if overgeneralized. It is meaningful for policy considerations, for illustrating broad cultural influences, and for establishing baseline data. Traditionally, public policies have largely been directed to Asian Americans rather than to specific Asian groups. Mental health policies and programs are often directed to the aggregate rather than to particular Asian American ethnicities. Research can be used to argue for Asian Americans as a collective. Furthermore, Asian American communities do share some cultural characteristics that may be important to contrast with non-Asian populations, such as their emphasis on collectivism rather than individualism, importance of loss of face, and so forth. Aggregate research is appropriate under such circumstances. The last point is that aggregate research is helpful in providing baseline information and in offering a starting point for more refined, specific group research. Much of the work comparing Asian and White Americans is important because it provides the basic information necessary to compare different Asian groups.

Nevertheless, we believe that the field will advance in a scientific sense by engaging in studies that examine variations within the Asian American group. These differences can serve as variables for the investigation of many issues such as experiences of refugees versus immigrants, acculturation effects, or value differences, factors that distinguish healthy from pathological functioning in a subgroup of Asian Americans. Because of the tremendous heterogeneity among Asian Americans, the effects associated with this heterogeneity should be examined further.

In summary, the specific prevalence rates of mental disorders among Asian Americans have been difficult to determine. Sufficient evidence does exist to show that Asian Americans are not significantly less prone to mental disorders than other ethnic groups. The relatively small population, heterogeneity, and changing demographic characteristics have hindered a more precise determination of prevalence rates within the Asian American population. Research concerning mental health issues should continue to be based on both the aggregate group (all Asian Americans) and particular Asian ethnicities.

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