

## Factors Associated with Mental Health Service Use Among Latino and Asian Americans

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**Abstract** Literature concur that there is a disparity between epidemiological prevalence and mental health services (MHS) utilization rates for Latino and Asian Americans. This study adapted the behavioral model of health service use to examine factors associated with MHS use among Latino and Asian Americans. The model consists of predisposing, enabling, and need factors. This study used the National Latino and Asian American Study data, including six ethnic groups. The outcome measure for this study was the use of MHS in the past 12 months. Age, sex, and education predicted higher odds of MHS use among Latinos, none of which were significant among Asians. Needs factors were strongly associated with higher odds of MHS use among Latinos and Asians.

**Keywords** Mental health · Service use · Latino · Asian · Immigrant

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### Introduction

Literature concur that there is a disparity between epidemiological prevalence and mental health services (MHS) utilization rates for Latino and Asian Americans (Abe-Kim et al. 2007; Alegria et al. 2002; Wang et al. 2005; Xu et al. 2011). In addition to being visible racial minorities in the U.S., Latino and Asian Americans seem to share commonly identified barriers to accessing existing mainstream MHS, such as limited English proficiency (Bauer et al. 2010; Kim et al. 2011), lack of health insurance (Alegria et al. 2006), and perceived discrimination (Spencer et al. 2010) by their community members.

### Model of Health Service Use

Identifying relevant factors associated with the MHS use among ethnic minority groups can be strengthened by application of theoretical framework to reflect the socio-cultural factors unique to these populations. The behavioral model of health service use (Andersen 1995, 2008) has been frequently used to examine factors associated with MHS use among ethnic immigrant groups in the U.S. and has been demonstrated to yield reliable results (Cabassa et al. 2006; Kim et al. 2010). This model views the MHS utilization as a function of individual as well as contextual characteristics (Andersen 2008). The model consists of three major factors: predisposing, enabling, and need factors. The flexible framework of this model allows reconceptualization of, and modification to, its components to better reflect on the target population.

First, predisposing factors have generally been conceptualized as socio-demographic characteristics (Andersen 1995), including age, sex, economic status, and educational level (Jang et al. 2009; Kim et al. 2010). In addition, race

and ethnicity seem to be important predisposing factors for MHS utilization among Latino and Asian Americans because of their contextual ramification within the U.S. society (U.S. Department of Health and Human Services 2001). For example, the results from the National Comorbidity Survey Replication showed that racial-ethnic minorities have greatest unmet need for mental health treatment (Wang et al. 2005). Likewise, within-race variation across different ethnic groups also exists in terms of prevalence of mental health problems and the determining factors for MHS utilization. For instance, Vietnamese were reported to experience a higher level of mental health problems than other Southeast Asians (Kim 2006); Filipinos seemed to use MHS more than other Asians (Uehara et al. 1994).

Secondly, enabling factors either facilitate or impede access to MHS (Andersen 1995), which includes both resources available to the individual and its sociocultural characteristics. Health insurance and financial status are good examples of the resources influencing financial decision to access the MHS (Alegría et al. 2012; Landerman et al. 1994) and have been examined by a few studies (Jang et al. 2009; Kim et al. 2010). Sociocultural characteristics can be particularly relevant for immigrant populations. While language can be critical to fully utilize physical health care, participating in mental health services can even further require extensive verbal expression of thoughts and feelings, which not only reflect language barriers, but also cultural ones. Thus, for immigrant minorities from non-English speaking countries, English proficiency plays a critical role in ability to access MHS in the U.S. (Kim et al. 2011). Considering racial discrimination as an enabling factor has not been explored as much as a part of MHS utilization model yet, although a few studies examined it as a correlate of MHS among Asian Americans (Burgess et al. 2008; Spencer and Chen 2004; Spencer et al. 2010). Similarly, literature on Latinos also shows a pattern of relatively little focus on discrimination and MHS utilization (Cho and Kim 2013; Cook et al. 2009; Lee et al. 1995; Mydans 1992).

Lastly, mental health need factors have been shown to have definitive effects on MHS use (Andersen 2008; Katz et al. 1997). Need factors have often been measured by self-reported assessment that includes DSM-IV diagnosis, overall mental health status, and psychological distress. DSM-IV diagnosis has been consistently shown to be associated with MHS use (Spencer and Chen 2004; Wang et al. 2005), while self-reported assessment of overall mental health status and the level of psychological distress have also been associated with MHS use (Kim et al. 2012). As each of these measures may represent more or less distinctive aspects of mental health, it would be better to include multiple measures of mental health in examining their effects on MHS use.

A few studies have used some of these factors to examine MHS use among Latino and Asian Americans. Some predisposing and need factors seem to consistently affect MHS use among them. For example, individuals with mental health concerns who are older, female, and economically affluent are more likely to use MHS (Kessler et al. 1999; Wang et al. 2005). However, other predisposing and enabling factors' influences on MHS use have not been consistent across Latino and Asian Americans. First of all, Asian Americans seem to use MHS less than Latino Americans (Abe-Kim et al. 2007; Alegría et al. 2007; Young 1998). While some studies found racial discrimination to be associated with MHS use among Asian Americans (Spencer et al. 2010) and Latino Americans (Alegría et al. 2007), whereas other results were rather complicated on that relationship. For example, MHS utilization among Chinese Americans was associated with discrimination resulting from language difficulties, but not with racial discrimination (Spencer and Chen 2004). Perceived discrimination was not associated with preventive health services in California (Trivedi and Ayanian 2006). Similarly, immigration-related variables (e.g., English proficiency and nativity status) were not always associated with MHS use as well as the directions and strengths of the relationship were not consistent (Alegría et al. 2007; Gilmer et al. 2007; Takeuchi et al. 2007). Furthermore, numerous ethnic subgroups in Latino and Asian Americans have often been combined together into a pan-ethnic category, only to be represented as either Latino or Asian Americans (Bledsoe 2008), despite critical demographic and sociocultural differences and potentially different patterns of MHS use across the subgroups (Alegría et al. 2007; Barreto and Segal 2005).

This study fills some of these gaps in literature by utilizing a large, nationally representative data and applying the Andersen's model of health service use to examine factors affecting MHS use among Latino and Asian Americans and differences within and across the race and ethnic groups.

## Methods

### Sample

This study used the National Latino and Asian American Study (NLAAS) data. Collected between May 2002 and December 2003, the NLAAS is a first nationally representative survey of Latino and Asian American adults living in the all 50 states of the U.S. The eligibility criteria for inclusion in the NLAAS were: Latino and Asian adult over 18 years of age. A survey protocol, sampling design, data collection procedures have been described in detail

elsewhere (Heeringa et al. 2004; Pennell et al. 2004). The NLAAS sample comprised of 4,649 respondents (Latino = 2,554; Asian = 2,095). After excluding respondents who were categorized as “other Asians” or “other Latinos,” the overall sample resulted in 3,485 (Latino = 1,896; Asian = 1,589). The Latino sample consisted of three ethnic groups: Cuban (n = 573), Mexican (n = 849), and Puerto Rican (n = 474). The Asian sample (n = 1,589) also consisted of three ethnic groups: Chinese (n = 580), Filipino (n = 498), and Vietnamese (n = 511).

### Measures

The outcome measure for this study was whether or not the respondents have used *MHS in the past 12 months* for any mood disorders, anxiety disorders, or substance-related disorders. Those respondents who reported seeing any one of the health professionals (psychiatrist, psychologist, medical doctor, social worker, counselor, or other health or mental health professionals) for problems about emotions, nerves, or mental health were dichotomously coded as yes (1) or no (0).

### Predisposing Factors

Five factors associated with sociodemographic information were identified as predisposing factors. Age ranged from 18 to 97. Sex was coded as female (1) or male (0). Education was coded into three categories: less than high school (0; reference group), more than high school diploma but less than bachelor's degree (1), and bachelor's degree or higher (2). Race was coded as Asian (0) or Latino (1). Ethnicity was coded three-ways within each race: among Asians, Vietnamese (1), Filipinos (2), or Chinese (3; reference group); among Latinos, Cubans (1), Puerto Ricans (2), or Mexicans (3; reference group).

### Enabling Factors

Five enabling factors were identified for this study: English proficiency, assessed how well respondents speak, write, and read English, indicating either excellent/good (1) or fair/poor (0). Nativity was a dichotomous variable indicating immigrant (0) or US-born (1). Insurance status was a dichotomized into having health insurance (0) or not (1). Financial stability was assessed by asking “in general, would you say you have more money than you need, just enough, or not enough to meet your needs?” Those who reported having “more than” or “just enough” need were coded as (1) to indicate financial stability, while those reported having “not enough” were coded as (0) to indicate financial instability. Racial discrimination measure

consisted of 3 items and assessed the respondents' negative experiences because of his/her ethnic background by asking three questions related to unfair treatment ranging from never (1) to often (4). A representative item includes ‘how often do people dislike you because you are [ethnic/racial group of respondent]?’ (Vega et al. 1993). The Cronbach's alpha score for racial discrimination measure was 0.83.

### Need Factors

Three need factors were identified for this study: any of the 11 diagnoses<sup>1</sup> based on the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV; American Psychiatric Association 1994); psychological distress; and self-reported mental health. Any DSM-IV diagnosis was coded as 0 (no) if the respondents did not have any diagnosis, or coded as 1 (yes) if any of eleven 12-month DSM-IV disorders was present. Psychological distress measure consisted of 10 items and assessed for non-specific psychological distress during the past 30 days (Derogatis 1977), ranging from low (1) to high (5) level of psychological distress. The Cronbach's alpha score for the psychological distress measure was 0.91. Self-reported mental health assesses respondents' rating of their mental health status, ranging from poor (1) to excellent (5).

### Analyses

We looked at the descriptive characteristics of the study sample and the key measures used for the multivariate analyses. We also examined significant group differences between the Asian and Latino groups, as well as within each groups using F test and t test statistics. Sequential (hierarchical) logistic regression analyses were employed to examine if addition of information regarding predisposing, enabling, and need factors improved the prediction of mental health service use in the past 12 months. Two sets of sequential logistic regression analyses were performed for Latino-only (n = 1,896) and for Asian-only (n = 1,589) groups.

All models were weighted to account for multi-stage complex survey sample design of the NLAAS data using the -svy- set of commands in Stata (StataCorp 2009). The issues of multicollinearity among the predictor variables were examined. The results of Variance Inflation Factor (mean VIF = 1.27) indicate that there is no concern for

<sup>1</sup> Eleven DSM-IV diagnoses include: five anxiety disorders (Panic disorder, agoraphobia, social phobia, generalized anxiety disorder, and posttraumatic stress disorder); two mood disorders (Major depressive disorder and dysthymia); and four substance use disorders (Alcohol abuse, alcohol dependence, drug abuse, and drug dependence).

multicollinearity problem, and thus the multivariate analyses were conducted as planned.

## Results

### Descriptive Characteristics

First, on the outcome variable of the study, Asians used less MHS in the past 12 months (mean [ $M$ ] = 5.5, standard error [ $SE$ ] = 0.01) compared with Latinos ( $M$  = 8.1,  $SE$  = 0.01;  $F(1,69) = 8.23$ ,  $p < 0.01$ ). Among the three Latino ethnicities, Mexicans used significantly less MHS ( $M$  = 7.01,  $SE$  = 0.01) than Puerto Ricans ( $M$  = 13.62,  $SE$  = 0.02;  $F(1,55) = 8.13$ ,  $p < 0.01$ ), while Cubans' use of MHS was not significantly different compared with either Puerto Ricans or Mexicans. There was no difference in the rates of MHS use among the three Asian ethnicities.

### Latino versus Asian Groups

The results of descriptive analyses have yielded several significant sociodemographic differences between two groups. On average, compared with Asians, Latinos were younger ( $M = 37.9$ ,  $SE = 0.66$  vs.  $M = 43.0$ ,  $SE = 0.76$ ;  $t(69) = 5.65$ ,  $p < 0.001$ ); had smaller proportion of college graduates (9.0 % vs. 36.9 %;  $F(1,69) = 122.47$ ,  $p < 0.001$ ); and had larger proportion of individuals born in the United States (46.1 vs. 20.5 %;  $F(1,69) = 31.3$ ,  $p < 0.001$ ). Latinos also lacked health insurance at a higher rate (38.6 vs. 16.1 %;  $F(1,69) = 56.42$ ,  $p < 0.001$ ); had lower proportion of individuals reporting financial stability (61.2 vs. 79.1 %;  $F(1,69) = 81.75$ ,  $p < 0.001$ ); and reported higher level of racial discrimination ( $M = 1.84$ ,  $SE = 0.04$  vs.  $M = 1.71$ ,  $SE = 0.03$ ;  $t(69) = -2.73$ ,  $p < 0.01$ ). Lastly, Latinos had a larger proportion of individuals who were categorized as having any DSM-IV diagnosis than Asians (16.8 vs. 9.0 %;  $F(1,69) = 39.84$ ,  $p < 0.001$ ).

### Within-Latino Group Differences

Among the three Latino ethnic groups (Cubans, Puerto Ricans, and Mexicans), the results yielded following significant differences. On average, Cubans were older ( $M = 48.7$ ,  $SE = 0.87$ ) than Puerto Ricans ( $M = 41.0$ ,  $SE = 1.64$ ;  $t(55) = -4.35$ ,  $p < 0.001$ ), who were older than Mexicans ( $M = 36.5$ ,  $SE = 0.67$ ;  $t(55) = -2.54$ ,  $p < 0.05$ ). Cubans had a higher proportion of individuals with college degrees or more than Puerto Ricans (23.7 vs. 11.9 %;  $F(1,55) = 13.35$ ,  $p < 0.001$ ), who had more education than the Mexicans (7.2 %;  $F(1,55) = 5.90$ ,  $p < 0.05$ ). Puerto Ricans had more individuals born in the United

States than Mexicans (60.5 vs. 45.8 %;  $F(1,55) = 12.46$ ,  $p < 0.001$ ), who had more U.S. born individuals than Cubans (14.3 %;  $F(1,55) = 80.11$ ,  $p < 0.001$ ). Puerto Ricans had a higher proportion of individuals with good/excellent English proficiency (69.1 %) than Mexicans (45.8 %;  $F(1,55) = 25.04$ ,  $p < 0.001$ ) or Cubans (40.8 %;  $F(1,55) = 36.74$ ,  $p < 0.001$ ). There was no difference in the level of English proficiency between Mexicans and Cubans. Mexicans (43.3 %) lacked health insurance at a higher rate than Cubans (24.9 %;  $F(1,55) = 17.66$ ,  $p < 0.001$ ), who had less insurance coverage than Puerto Ricans (17.8 %;  $F(1,55) = 4.05$ ,  $p < 0.05$ ). Cubans reported significantly lower level of racial discrimination ( $M = 1.58$ ,  $SE = 0.04$ ) than Puerto Ricans ( $M = 1.94$ ,  $SE = 0.05$ ;  $t(55) = 5.63$ ,  $p < 0.001$ ) and Mexicans ( $M = 1.85$ ,  $SE = 0.05$ ;  $t(55) = 4.21$ ,  $p < 0.001$ ). The mean racial discrimination scores were not significantly different between Puerto Ricans and Mexicans.

### Within-Asian Group Differences

There were also differences among the three Asian ethnic groups (Vietnamese, Filipino, and Chinese) across the study variables. Chinese had a higher proportion of individuals with college degrees or more (44.2 %;  $F(1,56) = 22.30$ ,  $p < 0.001$ ) than Vietnamese (22.7 %), and Vietnamese had fewer proportion of college graduates than Filipino (35.8 %;  $F(1,56) = 5.92$ ,  $p < 0.05$ ). Filipinos had a higher proportion of native-born individuals (32.7 %;  $F(1,56) = 15.21$ ,  $p < 0.001$ ) than the Chinese (18.5 %), who had higher native-born proportion than Vietnamese (4.7 %;  $F(1,56) = 16.84$ ,  $p < 0.001$ ). Filipinos had a higher proportion of individuals with good/excellent English proficiency (80.7 %;  $F(1,56) = 38.36$ ,  $p < 0.001$ ) than Chinese (51.9 %), who had a higher proportion than Vietnamese (28.2 %;  $F(1,56) = 28.33$ ,  $p < 0.001$ ). Chinese reported higher racial discrimination ( $M = 1.83$ ,  $SE = 0.03$ ) than Filipinos ( $M = 1.63$ ,  $SE = 0.03$ ;  $t(56) = 5.62$ ,  $p < 0.001$ ) and Vietnamese ( $M = 1.59$ ,  $SE = 0.04$ ;  $t(56) = 4.03$ ,  $p < 0.001$ ), but no difference in the level of racial discrimination was found between Filipinos and Vietnamese. Chinese reported higher psychological distress ( $M = 1.43$ ,  $SE = 0.02$ ) than Vietnamese ( $M = 1.34$ ,  $SE = 0.02$ ;  $t(56) = 3.13$ ,  $p < 0.01$ ) and Filipinos ( $M = 1.32$ ,  $SE = 0.02$ ;  $t(56) = 4.34$ ,  $p < 0.001$ ), but there was no significant difference between Vietnamese and Filipinos in terms of psychological distress level. Lastly, Filipinos reported higher self-rated mental health ( $M = 3.99$ ,  $SE = 0.08$ ) than Vietnamese ( $M = 3.60$ ,  $SE = 0.05$ ;  $t(56) = 4.22$ ,  $p < 0.001$ ) and Chinese ( $M = 3.59$ ,  $SE = 0.06$ ;  $t(56) = -3.59$ ,  $p < 0.01$ ). No significant difference in the level of self-rated mental health was found between Vietnamese and Chinese.

### Latino Group Multivariate Analyses

The results of sequential logistic regression among Latino-only group ( $n = 1,896$ , including Cuban, Puerto Rican, and Mexican ethnicities) yielded a number of significant factors. Logistic regression results (i.e., odds ratio) are statistically significant when 95 % confidence interval does not include zero. When predisposing factors were entered in model 1, older age [odd ratio ( $OR$ ) = 1.01, 95 % confidence interval ( $CI$ ) = 1.00, 1.03], being female ( $OR = 2.13$ ,  $CI$  1.35, 3.36), being Puerto Rican (compared with Mexican;  $OR = 1.79$ ,  $CI$  1.09, 2.94), and having more than bachelor's degree (compared with less than high school degree;  $OR = 2.37$ ,  $CI$  1.44, 3.91) were significantly associated with the past 12-month MHS use. When enabling factors were added in model 2, financial stability ( $OR = 0.57$ ,  $CI$  0.39, 0.85) was negatively associated with the past 12-month MHS use, while racial discrimination ( $OR = 1.45$ ,  $CI$  1.15, 1.84) was positively associated with the outcome. The effects of age ( $OR = 1.01$ ,  $CI$  1.00, 1.03) and sex ( $OR = 2.11$ ,  $CI$  1.33, 3.35) remained significant, whereas the effects of ethnicity and education disappeared in model 2. When need factors were added in the model 3, having DSM-IV disorder ( $OR = 4.82$ ,  $CI$  3.12, 7.45), higher psychological distress ( $OR = 2.13$ ,  $CI$  1.35, 3.35) were positively associated, while higher self-rated mental health ( $OR = 0.60$ ,  $CI$  0.45, 0.82) was negatively associated with the past 12-month MHS use. The effects of age ( $OR = 1.02$ ,  $CI$  1.00, 1.03) and sex ( $OR = 1.76$ ,  $CI$  1.06, 2.90) remained significant; the effect of having more than bachelor's education, compared with having less than high school equivalent degree ( $OR = 3.06$ ,  $CI$  1.41, 6.64) re-emerged as significant; having no insurance ( $OR = 0.440$ ,  $CI$  0.20, 0.94) emerged as significant; and the significant effects of financial stability and racial discrimination disappeared in model 3 when need factors were included in model 3.

### Asian Group Multivariate Analyses

The results of sequential logistic regressions among Asian-only group ( $n = 1,589$ , including Vietnamese, Filipino, and Chinese ethnicities) revealed that when predisposing factors were entered into the model 1, none of them was significantly associated with the past 12-month MHS use. When enabling factors were added into the model 2, being a US-born ( $OR = 3.47$ ,  $CI$  2.02, 5.98) was positively associated with the MHS use, while financial stability ( $OR = 0.40$ ,  $CI$  0.25, 0.62) was negatively associated with the outcome. Being Vietnamese Americans ( $OR = 1.99$ ,  $CI$  1.13, 3.51), compared with Chinese Americans, emerged as significant factor associated with the MHS use in model 2. Adding the need factors in model 3 revealed

that both having DSM-IV disorder ( $OR = 6.93$ ,  $CI$  4.26, 11.27) and higher level of psychological distress ( $OR = 2.25$ ,  $CI$  1.46, 3.47) were associated with the MHS use in the past 12 months. The effects of being Vietnamese compared with Chinese ( $OR = 2.25$ ,  $CI$  1.27, 3.96), being a US-born ( $OR = 2.98$ ,  $CI$  1.49, 5.95), and financial stability ( $OR = 0.61$ ,  $CI$  0.40, 0.92) factors remained significant in model 3.

### Discussion

This study analyzed factors for mental health service use among Asians and Latinos and examined if MHS use and the factors differ between the two groups. Descriptive statistics show that Latinos used MHS more than Asians, and among the Latino ethnicities, Puerto Ricans used more MHS than Mexicans. There were also differences between the two racial groups as well as among the ethnicities in the study variables related to the predisposing, enabling, and need factors, as identified in the model of health service access (Andersen 1995). These results suggest that MHS use may be associated with those three types of factors, which might have differential effects on MHS use for each subgroup.

It is surprising to find that Asians used MHS less than Latinos. Asians might rely less on formal help sources, such as doctors and counselors, but more on informal help sources, such as family members and friends (Spencer et al. 2010), which was not included in this analysis. Asians might have different coping strategies dealing with mental health concerns, making them rely more on personal willpower than on health services (Leong and Lau 2001). There might be less MHS available in Asian communities that can reach a variety of Asian populations speaking different native languages, compared to MHS in Latino communities that might be able to deliver services in Spanish that allow them to reach a wide range of Latinos (Aguilera and Lopez 2008). The nativity of the participants for this study may explain some of the differences in MHS use. The Asian sample contains a higher proportion of non-US born participants. Further, this sample included Puerto Ricans, Cubans, and Mexicans, of which the former two have a history in the U.S. that links them more directly to formal service utilization (Vélez Ortiz and Cole 2008).

Separate analyses of Asians and Latinos revealed that factors for MHS use varied between the two groups. Of all predisposing factors, age, sex, and education predicted higher odds of MHS use among Latinos. Latino men may be reluctant to use MHS for they are likely to have been raised to perceive that mental health concerns can be better handled within family than by seeking health services (Ikemoto 1992–1993; Peifer et al. 2000). As lower

education was associated with lower likelihood of MHS use among Latinos, it might be a good public health approach to develop health programs that can address mental health issues among Latino children and adolescents in schools, which might help them use MHS rather willingly in their adulthood when they have mental health concerns. Disappearance of the initial difference between Mexicans and Puerto Ricans when controlling for the enabling and needs factors suggest that ethnic differences among Latinos in MHS use might be accounted for by other factors, such as health insurance and mental health needs. This effect may also point to an important role of cultural beliefs in awareness about mental health issues. It may be that cultural beliefs about mental health issues differ on less severe cases but not on severe and persistent mental health conditions, which tend to have greater somatic expressions. Further research is needed to explore the potential of cultural beliefs in impeding the early detection and treatment of non-persistent and severe mental health conditions depending on Latino ethnic subgroup.

The only predisposing factor affecting Asians' MHS use was ethnicity: Chinese were less likely to use MHS than Vietnamese. Considering that there was no significant difference in MHS use across the three Asian ethnic groups, this result is somewhat surprising. The proportion of US-born Chinese was higher than that of US-born Vietnamese. Chinese also have a longer presence in the United States (i.e., higher familiarity with Western concept of mental health), which may increase MHS use. Thus, one might expect that there would be more use of MHS among Chinese Americans compared with Vietnamese Americans. Other factors, such as attitudes toward mental health, community environment, and ethno-cultural contexts, not included in this study might explain this difference (Andersen 1995).

Enabling factors for MHS use also varied between Latinos and Asians. While US-born Asians were more likely to use MHS than the foreign-born, no such difference was found among Latinos. The results for the Latino sample may be due to a larger proportion of US born participants in the sample, since almost half of the Latinos in the sample (46.1 %) were born in the United States. In addition, the rate of mental health service use was low for Latinos, which may mean that even those born in the US do not seem to be easily accessing mental health services. It is hard to explain with the current data the differences in the effects of nativity in MHS use between Asians and Latinos. Advanced methods with other factors considered together will be one direction for future research as described later.

Financial stability was negatively associated with MHS use among Asians. Financially stable Asians may be able to utilize other means, such as several workdays off and physical exercises, to address their mental health concerns

than using MHS. While financial stability was not a predictor among Latinos, it is noteworthy that financial stability was significant when need factors were not included. Latinos without health insurance were less likely to use MHS than those having insurance. After the addition of need variables, the financial and discrimination effects disappeared for the Latino sample. Then, insurance appeared as a significant factor, which suggests that Latinos may not be seeking help until mental health symptoms have reached distress or impairment. At that point, the main barrier to treatment may be whether services will be available without insurance. There was no such relationship among Asians, even before considering need factors. These complicated relationships regarding MHS use and differences between Asians and Latinos may need to be further examined by advanced multivariate analytic methods that can address direct, indirect, mediating, or moderating effects of these factors.

Needs factors were strongly associated with higher odds of MHS use among Latinos and Asians. One exception is self-rated mental health, which was a significantly associated among Latinos, but not among Asians. Asians may overestimate their mental health status, potentially underestimating mental health needs. Asians may also be reluctant to reveal their weakness in mental health, but active in MHS use when they feel the needs. These results suggest that relying solely on self-reporting measures of mental health status in assessing mental health needs may not be enough, especially for Asians. In addition, bivariate correlations among the three need factors were at best moderate ( $r < 0.5$ ), which suggest that all these three measures represent somewhat different aspects or dimensions of mental health and thus need to be used complementarily.

## Conclusions

This study makes a contribution to the current literature on mental health service use by beginning to disentangle the pan-ethnic approach into a closer examination of ethnic subgroups within larger census categories. In light of the Andersen Model, the study findings point to racial/ethnic and subgroup differences in predisposing, enabling, and need factors. This study poses some limitations. First, the use of self-reported data creates a potential bias on the findings. Given the sensitivity and stigma attached to mental health, participants may have provided answers that were not reflective of their true level of needs and service use. The sample in this study contains a small number of second generation participants, which could potentially underestimate the effects of discrimination on the dependent variables. Further, the cross sectional nature of the

study does not allow us to make statements regarding causation. Further research is needed to explore the specific role of culture in identifying mental illness and seeking treatment, especially early in the course of mental illness or for episodic events. Qualitative studies can help expand knowledge about cultural notions that could pose barriers to seeking mental health services. Despite the limitations, the current study results are expected to inform mental health practices. While MHS use was strongly associated with mental health needs, other factors affecting MHS use were shown to differ greatly across race and ethnicity. Mental health practitioners need to understand such diversity in the factors affecting access and use of MHS among Asians and Latinos, which will help improve services for racial and ethnic minorities.

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