



Trends and Disparities in Mental Health Use Among Asian American Sub-groups, 2013–2019

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Abstract

Objective The objective of this study was to characterize and compare national estimates of mental healthcare use among White and Asian American groups to provide an update using post Affordable Care Act data.

Methods We analyzed yearly cross-sectional data from the 2013–2019 Medical Expenditure Panel Survey, including White ($n = 112,590$) and Asian American ($n = 10,210$) individuals, and examined rates of mental healthcare use for Asian (overall), Asian Indian, Chinese, Filipino, and Other Asian individuals relative to White individuals. Using multivariable logistic regression models and predictive margin methods, we estimated overall Asian disparities and Asian subgroup disparities compared to White group rates in mental health care (outpatient, specialty, psychotropic medication) among adults with and without elevated risk for mental illness. Regression models were adjusted for variables related to need for treatment, demographic, and socioeconomic status variables.

Results Asian individuals had lower rates of mental healthcare use than White individuals. Unadjusted results and adjusted regression model predictions are consistent in identifying wide disparities in mental health care treatment across risk for mental illness, Asian subgroups, and types of treatment.

Conclusions Asian Americans have significantly lower rates of mental healthcare use than White Americans, even among those with elevated risk for mental illness. There is small variation by Asian subgroups but disparities persist across subgroups and types of treatment. Our results imply interventions are needed to improve linguistically, culturally, and ethnically tailored outreach and engagement in treatment services, as well as examining treatment and its effectiveness for Asian American individuals living with psychological distress.

Keywords Healthcare disparity · Mental health services · Health care utilization · Asian American

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Introduction

Mental illness poses a tremendous health burden, with up to 46% of Americans meeting diagnostic criteria for mental illness in their lifetime [1]. Racial/ethnic disparities in mental health services utilization have been extensively documented [2–6]. Racially/ethnically minoritized groups are less likely to use outpatient mental healthcare [2], specialty mental health providers [7], and receive quality mental health treatment, relative to a comparable population of White Americans [3]. Among those with mental illness, racially/ethnically minoritized groups access care at half the rate of non-Hispanic Whites [8].

Despite having similar levels of mental illness burden [9], Asian Americans are less likely than White Americans to receive quality mental healthcare, which adversely impacts treatment use such as receiving mental health screenings [7,

10], referrals to specialty mental health treatment [5], being diagnosed with a mental health disorder [11], and receiving psychotropic medication [11]. Variability may in part be attributed to stigma and shame [12–16], differential conceptions of mental illness [12, 17, 18], insurance status [19], lack of culturally and linguistically appropriate care [19, 20], and fragmentation of the mental healthcare system [20]; though, these factors may have a varied effect depending on the Asian subgroup. When Asian Americans perceive a need for mental healthcare or have a diagnosis of mental illness, they are less likely than White Americans to receive mental healthcare [5, 10, 21, 22], even when experiencing suicidal-ity [23], a leading cause of death for Asian Americans [24].

Asian Americans are underrepresented in clinical research [25], and there is limited research examining mental health services use among Asian subgroups. Prior data from largely pre-ACA populations has shown that Asian Americans in aggregate had lower rates of mental healthcare utilization compared to White Americans [2, 4, 7]. What research that does exist examining Asian subgroups shows Chinese, Filipino, Vietnamese, and Other Asian Americans have low rates of mental healthcare utilization relative to White Americans [26]. However, due to the age of the data examined, these findings may not be representative of changes to the healthcare landscape [27, 28].

The objective of this study is to provide a much-needed update to national trends in mental healthcare use (2013–2019) among Asian American subgroups, and to examine differences between non-Hispanic White Americans and Asian Americans using the Medical Expenditure Panel Survey (MEPS). This study builds on prior research highlighting the variation that exists among subgroups, which is usually masked by omission of the Asian group due to lack of sample size or aggregation of Asian Americans [29–32].

Methods

Data Source

This study analyzed cross-sectional data from the 2013–2019 Household Component of the Medical Expenditure Panel Survey (MEPS), which captures demographics, medical conditions, and health service use of non-institutionalized US civilians. MEPS is widely used to provide national estimates of healthcare measures to inform policy and practice [33]. We combined multiple cross-sections (2013–2019) to increase the precision of point estimates. MEPS verifies health service use by cross-matching reported utilization with data from a random sample of survey participants' medical providers. Details on the MEPS verification methods are described elsewhere [33]. MEPS oversamples

policy-relevant populations, such as Asian Americans, to produce nationally-representative estimates of healthcare utilization [34]. This study used publicly available de-identified data and received a determination of not human subjects research by the Boston University Medical Center Institutional Review Board.

Analytic Sample

The analytic sample consisted of adults (≥ 18 years), who self-reported being non-Hispanic White ($n = 112,590$ hereafter White) and non-Hispanic Asian ($n = 10,210$, hereafter Asian (overall)). Adults reporting Asian race also self-reported their subgroup, defined by the country of the respondents' descendants: Asian Indian ($n = 2492$), Chinese ($n = 2044$), and Filipino ($n = 1685$). Due to limited sample size, MEPS categorizes all Asian subgroups not previously mentioned as Other Asian/Native Hawaiian/Pacific Islander ($n = 3989$, hereafter Other Asian).

Outcome Measures

We examined differences between White and Asian (overall and subgroups) individuals in mental healthcare use in the past year. Treatment was classified into four categories: any mental healthcare use (outpatient visit or psychotropic medication fill), any outpatient mental health treatment (visit to primary care provider or specialty mental health provider), any specialty mental health treatment (visit to psychiatrist, psychologist, counselor, or social worker), and any psychotropic medication fill. Mental health visits included visits for a disorder covered by the International Classification of Diseases, Ninth Edition (ICD-9) codes 291, 292, or 295-314, and Tenth Edition (ICD-10) codes F01-99. Specialty mental health treatment also included visits classified as “psychotherapy or mental health counseling” by the respondent. Similar outcome operationalization has been utilized in past studies [2, 3]. Psychotropic medications were identified using the Multum Medication Lexicon drug classification system [35].

Independent Variables

The primary predictors of interest were Asian race and Asian subgroup (Asian Indian, Chinese, Filipino, or Other Asian). In secondary analyses, to determine whether disparities differed by mental health status, the predictor of interest was an interaction between Asian race/subgroup and an indicator for elevated risk of mental illness. We defined elevated risk of mental illness as heightened depressive symptoms (PHQ-2 scores ≥ 3) or serious psychological distress (K-6 scores ≥ 13). The PHQ-2 and K-6 are both validated measures for identifying individuals

with mental illness among ethnically diverse outpatient populations, with the PHQ-2 demonstrating strong sensitivity (87%) and specificity (78%) for detecting major depressive disorder and the K-6 demonstrating strong sensitivity (90%) and specificity (89%) for severe mental illness [36–38]. Regression models adjusted for the following covariates: year (2013, 2014, 2015, 2016, 2017, 2018, 2019), age (18–24, 25–44, 45–64, 65+), sex (male, female), time in the USA among foreign born (less than 1 year, 1–5 years, 5–10 years, 10–15 years, 15 years or more, not applicable), region of residence (Northeast, Midwest, South, West), marital status (yes, no), employment status (yes, no), federal poverty level (FPL; < 100% FPL, 100–124% FPL, 125–199% FPL, 200–399% FPL, > 400% FPL), insurance (private, public, uninsured), and education (less than high school graduate, high school graduate, any college, or college graduate). We also included measures of physical and mental health status, which consisted of self-rated mental health and physical health (excellent, very good, good, fair, poor), Patient Health Questionnaire-2 (PHQ-2) scores (0–6), Kessler 6 (K-6) Psychological Distress Scale scores (0–24), SF-12 physical and mental health scores (0–100), presence of work limitation (yes, no), and number of chronic physical health conditions (0, 1, 2+).

Statistical Analysis

First, we compared demographic, clinical, and service use characteristics between White, Asian, and Asian subgroups using *t* tests and chi-square tests for continuous and categorical variables, respectively. Next, we plotted unadjusted rates of any mental healthcare use from 2013 to 2019 for Whites and Aggregate Asians among those with elevated and low (i.e., not elevated) risk of mental illness.

We then specified multivariable logistic regression models to estimate mental health service use conditional on the primary predictors and covariates, with an interaction between Asian subgroup and an indicator for elevated risk of mental illness, which allows for the prediction of comparisons of rates of mental healthcare use between White and Asian adults with and without elevated risk of mental illness. For interpretability and to overcome potential bias in estimating interaction terms in nonlinear models, we estimated and reported predicted probabilities for each category using the predictive margins methods [39]. We estimated variances for all analyses which allows us to assess differences by group across risk categories, accounting for the complex study design, nonresponse rates of the MEPS, and standardized stratum and primary sampling unit variables across pooled years [40]. Analyses were completed using Stata version 16 (StataCorp, College

Station, Texas) and following STROBE reporting guidelines [41].

Results

In unadjusted analyses of outcome variables, Asian individuals (both overall and Asian subgroups) had significantly lower rates of mental healthcare use than White individuals in all four measures examined (Table 1). Asian Indian individuals reported the lowest rates of any mental healthcare use (7.3%), followed by Filipino, Chinese, Other Asian and White groups (9.0%, 9.3%, 10.2%, and 25.6%, respectively).

There were significant differences between Asian (overall and subgroups) and White individuals in variables related to clinical need, demographics, and socioeconomic status (Table 1). Asian adults were generally younger, higher educated, higher income, more likely to be married, privately insured, and to live in the Northeast and West compared to White adults. Regarding health status, Asian groups were significantly less likely to have had any work limitation and less likely to report poor self-rated physical and mental health and multiple chronic physical health conditions (Table 1).

When stratifying by risk of mental illness, Asian individuals with elevated risk (28% in 2013 to 34% in 2019) were approximately half as likely to access treatment compared to White individuals with elevated risk across all years (59% in 2013 to 66% in 2019) (Fig. 1). Asian individuals without lower risk of mental illness also had significantly lower rates of any mental healthcare use across all years (9% in 2013 to 12% in 2019) compared to White individuals (24% in 2013 and 28% in 2019) (Fig. 1).

After adjustment for variables associated with need for treatment, demographics and socioeconomic status, the overall Asian group was significantly less likely to report any mental healthcare use, any outpatient, specialty and psychotropic medication treatment, compared to their White counterparts. These disparities were consistent across Asian subgroups and by level of risk of mental illness (Table 2). Some disparities (e.g., between Filipino individuals with elevated risk and their White counterparts) were similar in magnitude but not statistically significant because of wide confidence intervals (Table 2).

When focusing on graphic illustrations of the rates of mental health treatment among those with elevated risk of mental illness, the consistency of mental health treatment disparities is apparent across treatment categories among Asian (overall), Asian Indian, Chinese, and Other Asian individuals (Fig. 2).

Table 1 Weighted population characteristics for White, Asian (total), and Asian subgroup adults (≥ 18 years), 2013–2019 Medical Expenditure Panel Survey

	White	Asian (overall)	Asian Indian	Chinese	Filipino	Other Asian	p value
<i>N</i>	112,590	10,210	2,492	2,044	1,685	3,989	
<i>Outcomes</i>							
Any mental healthcare use	25.6%	9.0%	7.3%	9.3%	9.0%	10.2%	***
Any outpatient mental healthcare use	10.3%	3.6%	3.3%	3.7%	3.8%	3.6%	***
Any specialty mental healthcare use	6.8%	2.5%	2.1%	3.2%	2.6%	2.4%	***
Any psychotropic medication fill	17.1%	4.6%	3.7%	4.7%	3.9%	5.4%	***
<i>Demographics</i>							
<i>Age</i>							
18–24	31.0%	30.6%	32.5%	27.7%	28.3%	31.6%	***
25–34	13.2%	16.9%	20.1%	17.6%	13.6%	15.5%	***
35–44	12.3%	15.9%	19.9%	14.7%	15.6%	14.0%	***
45–54	13.2%	14.4%	12.2%	15.2%	15.6%	15.0%	***
55–64	13.4%	10.3%	7.8%	11.0%	13.0%	10.5%	***
65+	16.9%	12.1%	7.6%	13.8%	13.9%	13.5%	***
<i>Sex</i>							
Male	49.3%	47.4%	50.4%	45.6%	44.1%	47.5%	**
<i>Education</i>							
Less than high school	26.6%	24.0%	22.4%	21.4%	19.8%	28.0%	***
High school graduate	23.5%	15.5%	10.5%	12.7%	12.1%	21.4%	***
Some college	22.8%	17.1%	11.1%	13.5%	26.9%	18.9%	***
College graduate	27.0%	43.5%	56.0%	52.3%	41.3%	31.7%	***
<i>Married</i>							
Yes	43.0%	48.7%	54.4%	51.7%	47.8%	43.6%	***
<i>Employed</i>							
Yes	63.9%	64.9%	68.4%	64.7%	67.0%	61.9%	***
<i>Insurance</i>							
Private insurance	55.9%	64.2%	74.9%	67.5%	65.7%	54.7%	***
Medicaid	16.6%	16.7%	12.8%	13.3%	12.2%	22.7%	***
Medicare	19.7%	12.7%	7.9%	14.1%	14.7%	14.6%	***
Uninsured	7.9%	6.4%	4.4%	5.1%	7.4%	8.1%	***
<i>Federal poverty level (FPL)</i>							
<100% FPL	11.3%	10.4%	7.0%	9.5%	5.9%	14.8%	***
100–124% FPL	4.1%	3.9%	2.6%	3.4%	2.5%	4.1%	***
125–199% FPL	12.8%	10.6%	6.5%	10.2%	9.1%	12.9%	***
200–399% FPL	29.3%	24.3%	21.6%	17.9%	29.3%	29.2%	***
400% + FPL	42.5%	50.8%	62.3%	59.0%	53.1%	42.4%	***
<i>Region</i>							

Table 1 (continued)

	White	Asian (overall)	p value	Asian Indian	p value	Chinese	p value	Filipino	p value	Other Asian	p value
Northeast	17.4%	21.6%		33.2		24.8		12.9%		15.6%	
Midwest	22.5%	11.9%		15.2%		9.2		10.7%		11.6%	
South	35.8%	22.6%		35.6%		17.6%		11.3%		27.2%	
West	24.3%	43.8%		24.3%		48.4%		65.1%		45.7%	
Years in US			***		***		***		***		***
Born in US	88.9%	36.2%		32.2%		32.2%		33.1%		42.2%	
Less than 1	0.0%	0.5%		0.6%		0.3%		1.4%		0.2%	
1 year	0.6%	7.7%		11.4%		6.7%		6.1%		6.3%	
5 years	1.1%	10.4%		13.9%		10.4%		9.6%		8.3%	
10 years	1.6%	8.6%		8.8%		9.7%		10.2%		7.0%	
15+ years	7.7%	36.7%		33.1%		40.8%		39.7%		35.8%	
<i>Physical health status</i>											
Physical health Component of SF-12 (mean/sd)	44.3 (18.0)	43.5 (25.1)		43.6 (24.4)		44.0 (26.1)		43.6 (26.7)		43.0 (25.1)	
Self-rated physical health			***		***		**		**		
Excellent	33.9%	37.7%		39.8%		30.4%		32.5%		28.9%	
Very good	31.9%	32.5%		33.3%		37.5%		35.1%		32.0%	
Good	23.3%	22.1%		21.6%		22.8%*		24.3%		27.0%	
Fair	8.3%	6.1%		4.2%		7.4%*		6.5%		9.4%	
Poor	2.6%	1.6%		1.1%		1.9%		1.6%		2.7%	
Chronic conditions			***		***		***		***		***
0	48.6%	63.1%		68.6%		0.64		54.6%		62.0%	
1	22.2%	20.9%		19.0%		21.5%		24.2%		20.7%	
2+	29.2%	16.0%		12.3%		0.14		21.3%		17.3%	
<i>Mental health status</i>											
Mental Health Component of SF-12 (mean/sd)	46.3 (18.0)	44.5 (25.6)**		45.2 (25.2)		44.4 (26.5)*		45.3 (27.4)		43.9 (25.6)**	
Self-rated mental Health			***		***		***		***		***
Excellent	39.7%	45.5%		56.8%		38.3%		44.3%		42.0%	
Very good	31.0%	30.5%		25.2%		36.6%		36.0%		28.9%	
Good	22.4%	19.8%		15.5%		20.9%		6.9%		23.3%	
Fair	5.5%	3.4%		2.1%		3.8%		2.3%		4.4%	
Poor	1.4%	0.8%		0.5%		0.4%		0.5%		1.4%	
K-6 (mean/sd)	2.5 (3.8)	2.1 (4.2)****		1.6 (3.6)****		2.0 (3.9)****		1.9 (4.1)****		2.5 (0.1)	
PHQ-2 (mean/sd)	0.5 (1.1)	0.4 (1.2)****		0.3 (1.0)****		0.4 (1.1)**		0.4 (1.1)****		0.6 (1.4)	

All comparisons relative to White individuals. Score ranges for screening measures: Patient Health Questionnaire-2 (PHQ-2): 0-6, Kessler 6 (K-6) Psychological Distress Scale: 0-24, SF-12 physical and mental health scores: 0-100. Higher scores on PHQ-2 and K6 correspond with increased symptom severity. Lower scores on SF-12 indicate worse physical/mental health functioning

p* < 0.05; *p* < 0.01; ****p* < 0.001

Fig. 1 Unadjusted rates of any mental healthcare use for Whites and Asians with low and elevated risk for mental illness, 2013–2019. Aggregate of mental healthcare use (“any mental healthcare use”), including any mental healthcare use, any outpatient mental healthcare use, any specialty mental healthcare use, and any psychotropic medication fill

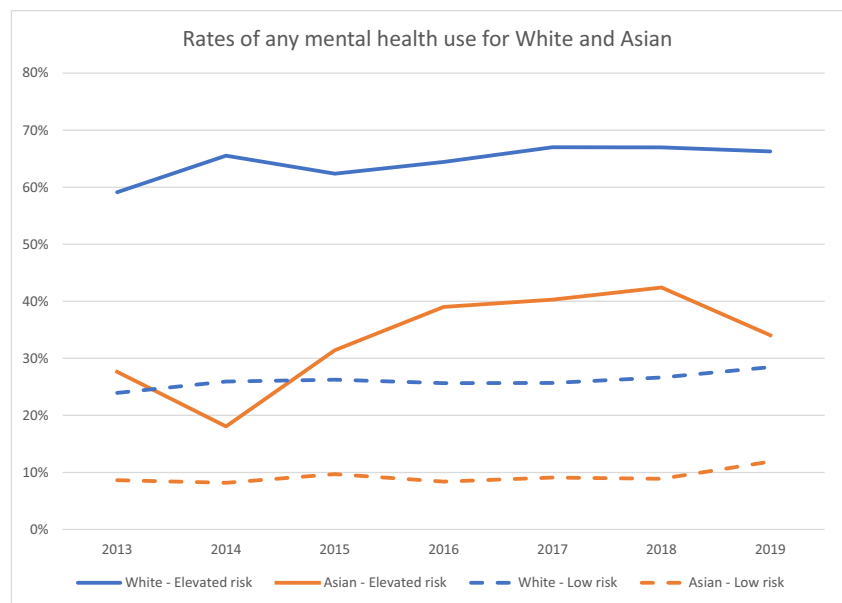


Table 2 Predicted rates of mental healthcare use by White and Asian Americans

	Any mental healthcare use		Any outpatient mental healthcare use		Any specialty mental healthcare use		Any psychotropic medication fill	
	Elevated risk	Low risk	Elevated risk	Low risk	Elevated risk	Low risk	Elevated risk	Low risk
White	38.7% (37.0% to 40.5%)	27.5% (27.0% to 28.1%)	13.9% (13.0% to 14.9%)	10.0% (9.7% to 10.3%)	8.3% (7.6% to 9.1%)	6.6% (6.4% to 6.9%)	27.8% (26.4% to 29.2%)	19.0% (18.6% to 19.4%)
Asian (overall)	25.2%* (19.9% to 30.4%)	16.5%* (15.0% to 18.1%)	8.5%* (6.2% to 10.9%)	5.6%* (4.8% to 6.4%)	5.4%* (3.6% to 7.3%)	3.8%* (3.1% to 4.4%)	17.7%* (13.8% to 21.6%)	10.3%* (9.0% to 11.5%)
Asian Indian	19.6%* (9.6% to 29.6%)	17.4%* (14.0% to 20.9%)	9.1% (3.1% to 15.2%)	6.2%* (4.1% to 8.2%)	4.7% (0.5% to 8.9%)	3.9%* (2.6% to 5.3%)	14.4%* (4.4% to 24.4%)	11.4%* (8.3% to 14.4%)
Chinese	21.3%* (7.7% to 35.0%)	17.7%* (13.9% to 20.2%)	5.6%* (0.7% to 10.5%)	5.5%* (3.9% to 7.0%)	3.9% (-0.3% to 8.0%)	4.3%* (2.8% to 5.8%)	15.5% (3.8% to 27.2%)	10.7%* (8.1% to 13.4%)
Filipino	24.0% (10.5% to 37.5%)	16.6%* (13.1% to 20.1%)	10.1% (3.1% to 17.2%)	6.0%* (4.1% to 8.0%)	5.5% (1.2% to 9.7%)	4.2%* (2.5% to 5.9%)	18.4% (7.9% to 29.0%)	8.8%* (6.5% to 11.1%)
Other Asian	27.9%* (20.8% to 35.0%)	15.7%* (13.5% to 18.0%)	8.6%* (5.6% to 11.7%)	5.2%* (4.2% to 6.2%)	5.9% (3.4% to 8.5%)	3.2%* (2.4% to 3.9%)	18.7%* (13.9% to 23.6%)	10.0%* (8.4% to 11.6%)

All between group comparisons in the elevated and low risk columns are relative to White patients. Rates are presented as estimate (95% confidence interval). Regression models adjusted for age, sex, time in USA, region of residence, marital status, employment status, federal poverty level, insurance, and education. We also included measures of MEPS participant physical and mental health, which consisted of self-rated mental health and physical health, PHQ-2 scores, K-6 scores, SF-12 physician and mental health scores, presence of work limitation, and presence of chronic condition. Elevated risk for mental illness was defined as a score of at least 3 on the PHQ-2 or a score of at least 13 on the K-6. Separate regression models were conducted for Aggregate Asians and Asian subgroups. * $p < 0.05$

Discussion

We analyzed nationally representative data from the MEPS to estimate disparities in mental healthcare service use among Asian Americans. Asian Americans, overall and subgroups,

consistently had lower rates of mental healthcare use than White Americans and these disparities persisted after adjustment for socioeconomic, demographic, and health-related variables. Building on prior research showing disparities in mental healthcare use among Asian populations [5, 7, 10, 11,

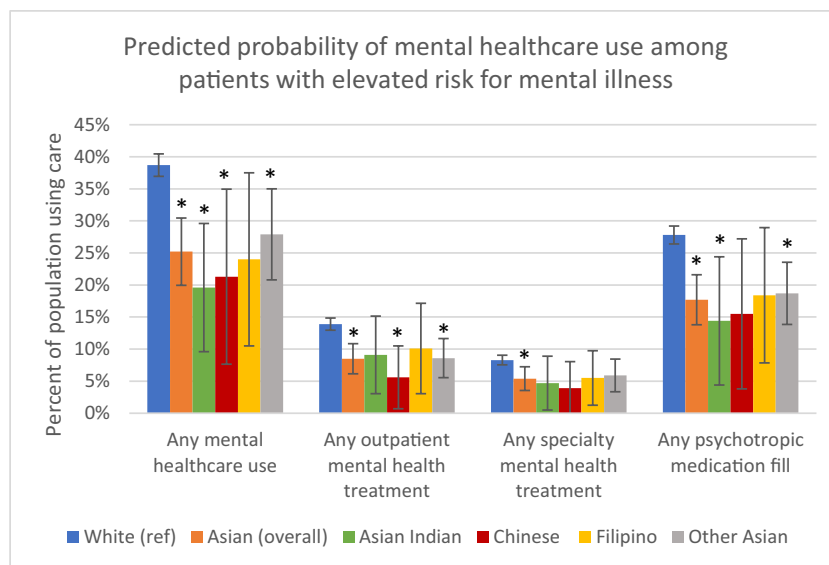


Fig. 2 Predicted probability of mental health use among White and Asian patients at elevated risk for mental illness. Comparative rates of mental health services use between Whites, aggregate Asians, and Asian subgroups showing the percentage of each subgroup utilizing a given service. Reference population: White. Regression models adjusted for age, sex, time in USA, region of residence, employment

status, marital status, federal poverty level, insurance, and education. We also included measures of MEPS participant physical and mental health, which consisted of self-rated mental health and physical health, PHQ-2 scores, K-6 scores, SF-12 physical and mental health scores, presence of work limitation, and presence of chronic condition. Bars represent 95% confidence intervals ($\pm 1.96 \times SE$). * $p < 0.05$

21, 22, 42], we find that even among those with elevated risk for mental illness, Asian individuals had lower rates of use relative to White individuals.

Enactment of policies that changed insurance coverage and access to mental healthcare, such as the Affordable Care Act (ACA) and the Mental Health Parity and Addiction Equity Act, did not reduce disparities between Asian and White groups. This is consistent with results from the California Health Interview Survey which showed that the ACA was associated with limited to no improvements in healthcare insurance rates among Asian subgroups and no reductions in disparities for access to and use of general healthcare services [43].

Following national trends, many of the Asian subgroups in our sample were younger [44], had higher levels of education [45], insurance [46], and self-reported mental health [47], which are often protective factors against mental illness, and positively associated with mental health treatment. Even after adjustment for these clinical need and sociodemographic variables, there exist disparities between Asian subgroups and White counterparts.

Our findings may be attributed to stigma surrounding mental illness, a well-established barrier to care among Asians (overall) [12], as well as Asian Indians [13], Chinese [14], Filipinos [15], and Other Asian-Americans. Psychological distress and mental illness may be viewed by some members of Asian communities as an indication of personal failings such as a lack of willpower, poor self-control, or inherent weakness [19, 48]. This stigma can also extend

beyond the individual, and may be viewed by others as a failure of the family [19]. As a result, some patients attempt to hide or repress their symptoms, struggles, and self-harm [49], resulting in delays in mental health treatment [50].

Acculturation may also affect mental healthcare access. Asian immigrants have lower rates of utilization than US-born Asians, and endorse a greater number of cultural and structural barriers to care [20]. Additionally, Asian immigrants may be more likely to seek alternative sources of support for mental illness and psychological distress such as other community members, alternative medical providers, and spiritual leaders [12, 15, 51, 52], which may contribute to lower rates of mental healthcare usage in this group. In contrast, utilization and perceived helpfulness of mental healthcare increased with every subsequent generation residing in the USA [26]. While we adjusted for time in the USA in our models, this may fail to capture the full extent of acculturative stressors and protective factors, so further exploration is needed.

Clinicians should be mindful of the diversity of the Asian population and be aware of the various barriers that may contribute to these continued disparities in care. Despite misconceptions to the contrary (e.g., model minority myth) [53], Asians still have substantial unmet need for mental healthcare. Indeed, our adjusted findings show low rates of mental healthcare utilization in all Asian populations relative to White individuals despite high levels of educational and socioeconomic achievement, and Asian individuals overall

and in subgroups with elevated risk of mental illness have lower rates of mental healthcare use.

Clinicians should also explore symptoms and complaints which differ from traditional Western illness presentations. Asian Americans may have differing risk factors for suicidality [54]. Portions of the Asian community have cultural views which may contribute to lower mental health utilization, including traditional cultural beliefs [12] and low acceptance of mental healthcare, particularly psychotherapy [13]. There may also be attribution of mental illness symptoms to culturally distinct syndromes or symptoms, such as somatization [17, 18]. This may contribute to lower rates of mental healthcare use among Asians, but does not fully explain treatment disparities [55].

At the same time, clinicians must be careful to avoid overgeneralization [56] (e.g., attributing beliefs held by a subset to the population as a whole) and stereotyping [53] (e.g., model minority myth) which can lead to incorrect assumptions about issues faced by individual patients [57] and erosion of the patient-provider relationship. Previous research suggests that many Asian patients delay seeking care until their symptoms become severe [58], which may contribute to avoidable hospitalizations and emergency room use. Among those who can access mental healthcare, Asian patients report more reasons for treatment non-adherence than White patients. If patients choose to avoid future engagement with the healthcare system due to poor care or negative prior experiences (e.g., racism) [59], their choice represents a failure of the system to provide quality care to diverse populations.

Logistical and systemic barriers to mental health care for Asian subgroups, including treatment costs, time away from work, and health system literacy, contribute to treatment disparities [19, 20]. Additionally, steps are needed to address the shortage of clinicians capable of providing linguistically appropriate and culturally humble care [48, 60], which is an important barrier for Asians with low English proficiency (LEP) [61], and Asian patients who are US-born or immigrated to the USA at a young age.

When designing interventions, stakeholders should recognize relevant differences in cultural, socioeconomic, and linguistic needs in the Asian population and model their efforts on culturally appropriate measures to address these issues [57, 62–64]. We highlight other researchers' caution against aggregating dissimilar populations [29–31], and recommend disaggregation of Asian subgroups whenever possible. Given the heterogeneity of the Asian American community, interventions should be made accessible to those of different backgrounds, such as through providing financial resources to those of lower socioeconomic backgrounds, or services for those who may not speak English. Clinicians working with these populations should strive to understand the unique forms of trauma and resilience that are associated with different ethnic subgroups' histories of immigration and acculturation to the USA. Though there has been

increased attention on Asian American mental health in light of increased racist rhetoric and hate crimes in addition to the stress of COVID-19, Asian Americans have long struggled to access timely, quality, culturally sensitive care [65].

Limitations

This research has several limitations. First, small sample sizes limit the precision of our estimates. Second, while the MEPS is a nationally representative survey that captures mental health service utilization and allows for stratification by Asian subgroups, it aggregates many ethnicities into one category: "Other Asian." This category aggregates heterogeneous and relatively well-studied populations (e.g., Korean Americans, Vietnamese Americans, Japanese Americans) with less researched Pacific Islander and Native Hawaiian populations, each with distinct cultures and barriers to care. The study also neglects important information about cultural, linguistic, and ethnic subgroups by categorizing individuals based on the country of their descendants. Given the lack of data on subgroups within the Asian race and because of the political importance of identifying groups in need of treatment, we feel our analyses remains important, but nonetheless recognize the heterogeneity across the Asian diaspora that informs help-seeking and perceptions and beliefs around mental health and mental health treatment. Third, MEPS does not include information about English language proficiency, a substantial and well documented barrier to care which is likely to impede the ability of some Asian Americans to utilize mental healthcare. We adjust for US birth and time in the USA, two variables which may serve as proxies for English language ability. Fourth, MEPS examines cultural factors, such as stigma or alternative conceptions of mental health symptoms, which may impact healthcare-related behavior. However, this underscores our main findings—even when Asian Americans report symptoms which align with common presentations of mental illness, they are less likely to receive care. Fifth, MEPS excludes homeless and incarcerated individuals, languages other than English/Spanish, and does not accurately measure undocumented immigrant status (which would be a large barrier to access). Thus, our findings are conservative estimates. Sixth, we used the PHQ-2 and K-6 scales to define populations with elevated risk for mental illness opposed to clinical evaluations. Nonetheless, these scales have well-validated psychometric properties for use for diverse patient populations and have been used for similar purposes in previous research. Given these limitations and the importance of this topic, future research should aim to examine use among additional Asian American subgroups while incorporating data addressing factors which could not be examined in this analysis.

Conclusion

Disparities in mental healthcare access among Asian Americans, including Asian Indians, Chinese, Filipinos, and Other Asians/Pacific Islanders relative to White Americans persist, even among those with elevated risk for mental illness. Stakeholders should recognize the importance of utilizing disaggregated data for this heterogeneous population whenever possible. Future interventions should address treatment disparities impacting the Asian American population with a focus on eliminating barriers to accessible, culturally competent care.

Author Contributions All authors contributed to the study conception and design. Dataset management and analysis was performed by MWF and BLC. The first draft of the manuscript was written by FQL. All authors provided comments, edited, and reviewed previous versions of the manuscript. All authors read and approved the final manuscript.

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Data Availability This study utilizes publicly available Medical Expenditure Panel Survey (MEPS) datasets.

Declarations

Ethics Approval As this study utilized publicly available deidentified data, this study received a determination of not human subjects research from the Boston University Medical Center IRB.

Consent to Participate Not applicable.

Consent for Publication Not applicable.

Conflict of Interest The authors declare no conflict of interest.

References

- Kessler RC, et al. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*. 2005;62(6):593–602.
- Cook BL, et al. Trends in racial-ethnic disparities in access to mental health care, 2004–2012. *Psychiatr Serv*. 2017;68(1):9–16.
- Carson NJ, et al. Quality of follow-up after hospitalization for mental illness among patients from racial-ethnic minority groups. *Psychiatr Serv*. 2014;65(7):888–96.
- Alegria M, et al. Disparity in depression treatment among racial and ethnic minority populations in the United States. *Psychiatr Serv*. 2008;59(11):1264–72.
- Le Meyer O, et al. Use of specialty mental health services by Asian Americans with psychiatric disorders. *J Consult Clin Psychol*. 2009;77(5):1000–5.
- Olfson M, et al. Trends in serious psychological distress and outpatient mental health care of US adults. *JAMA Psychiatry*. 2018;76(2):152–61.
- Meyer OL, et al. Disparities in assessment, treatment, and recommendations for specialty mental health care: patient reports of medical provider behavior. *Health Serv Res*. 2015;50(3):750–67.
- Hockenberry JM, et al. Trends in treatment and spending for patients receiving outpatient treatment of depression in the United States, 1998–2015. *JAMA Psychiatry*. 2019;76(8):810–7.
- Chu J, Sue S. Asian American mental health: what we know and what we don't know. *Online Read Psychol Culture*. 2011;3(1):4.
- Hahm HC, et al. Intersection of race-ethnicity and gender in depression care: screening, access, and minimally adequate treatment. *Psychiatric Services*. 2015;66(3):258–64.
- Wu C, et al. Racial disparity in mental disorder diagnosis and treatment between non-hispanic White and Asian American patients in a general hospital. *Asian J Psychiatr*. 2018;34:78–83.
- Kramer EJ, et al. Cultural factors influencing the mental health of Asian Americans. *West J Med*. 2002;176(4):227–31.
- Rastogi P, et al. Understanding clinician perception of common presentations in South Asians seeking mental health treatment and determining barriers and facilitators to treatment. *Asian J Psychiatr*. 2014;7:15–21.
- Yang LH, Phelan JC, Link BG. Stigma and beliefs of efficacy towards traditional Chinese medicine and Western psychiatric treatment among Chinese-Americans. *Cult Divers Ethn Min Psychol*. 2008;14(1):10–8.
- Sanchez F, Gaw A. Mental health care of Filipino Americans. *Psychiatric Services*. 2007;58(6):810–5.
- Link BG, et al. Measuring mental illness stigma. *Schizophr Bull*. 2004;30(3):511–41.
- Kung WW, Lu P-C. How symptom manifestations affect help seeking for mental health problems among Chinese Americans. *J Nerv Ment Dis*. 2008;196(1):46–54.
- Mak WWS, Zane NWS. The phenomenon of somatization among community Chinese Americans. *Soc Psychiatry Psychiatr Epidemiol*. 2004;39(12):967–74.
- Kung WW. Cultural and practical barriers to seeking mental health treatment for Chinese Americans. *J Community Psychol*. 2004;32(1):27–43.
- Derr AS. Mental health service use among immigrants in the United States: a systematic review. *Psychiatric Serv*. 2016;67(3):265–74.
- Lee SY, et al. Mental health service use by persons of Asian ancestry with DSM-IV mental disorders in the United States. *Psychiatric Serv*. 2011;62(10):1180–6.
- Yang KG, et al. Disparities in mental health care utilization and perceived need among Asian Americans: 2012–2016. *Psychiatric Serv*. 2020;71(1):21–7.
- Sheehan AE, Walsh RFL, Liu RT. Racial and ethnic differences in mental health service utilization in suicidal adults: a nationally representative study. *J Psychiatr Res*. 2018;107:114–9.
- Heron M. Deaths: Leading Causes for 2019. *Natl Vital Stat Rep*. 2021;70(9):1–114.
- Đoàn LN, et al. Trends in clinical research including Asian American, Native Hawaiian, and Pacific Islander participants funded by the US National Institutes of Health, 1992 to 2018. *JAMA Network Open*. 2019;2(7):e197432–e197432.
- Abe-Kim J, et al. Use of mental health-related services among immigrant and US-born Asian Americans: results from the national Latino and Asian American study. *Am J Public Health*. 2007;97(1):91–8.
- Obama B. United States health care reform: progress to date and next steps. *JAMA*. 2016;316(5):525–32.

28. Mulvaney-Day N, et al. Mental health parity and addiction equity act and the use of outpatient behavioral health services in the United States, 2005–2016. *Am J Public Health*. 2019;109(S3):S190–6.
29. Adia AC, et al. Health conditions, outcomes, and service access among Filipino, Vietnamese, Chinese, Japanese, and Korean adults in California, 2011–2017. *Am J Public Health*. 2020;110(4):520–6.
30. Sue S, et al. Asian American mental health: a call to action. *Am Psychol*. 2012;67(7):532–44.
31. Uehara ES, Takeuchi DT, Smukler M. Effects of combining disparate groups in the analysis of ethnic differences: variations among Asian American mental health service consumers in level of community functioning. *Am J Community Psychol*. 1994;22(1):83–99.
32. Kim W, Keefe RH. Barriers to Healthcare Among Asian Americans. *Soc Work Public Health*. 2010;25(3–4):286–95.
33. Stagnitti, M.N., et al., Design, Methods, and field results of the medical expenditure panel survey medical provider component (MEPS MPC) including the medical organizations survey (MOS)—2016 data year. methodology report #32. Rockville, MD: Agency for Healthcare Research and Quality; 2018.
34. Cohen, J.W., S.B. Cohen, and J.S. Banthin. The medical expenditure panel survey: a national information resource to support healthcare cost research and inform policy and practice. *Medical Care*. 2009;47(7_Supplement_1): S44–S50.
35. Multum MediSource Lexicon. Denver: Cerner Corporation, CO; 2020.
36. Kroenke, K., R.L. Spitzer, and J.B.W. Williams. The Patient Health Questionnaire-2: validity of a two-item depression screener. *Medical Care*. 2003;41(11):1284–92.
37. Kessler RC, et al. Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychol Med*. 2002;32(6):959–76.
38. Kessler RC, et al. Screening for serious mental illness in the general population. *Arch Gen Psychiatry*. 2003;60(2):184–9.
39. Graubard BI, Korn EL. Predictive margins with survey data. *Biometrics*. 1999;55(2):652–9.
40. MEPS HC-036: 1996 - 2018 Pooled estimation file. Rockville, MD: Agency for Healthcare Research and Quality; 2019.
41. von Elm E, et al. The strengthening of reporting of observational studies in epidemiology (STROBE) statement: guidelines for reporting observational studies. *PLOS Med*. 2007;4(10):e296.
42. Balaraman KK, Dan S, Ortega N, Srinivasan M, Palaniappan L, Singh J, Chung S, Joshi SV. Psychological distress and mental health service utilization disparities in disaggregated Asian American populations, 2006–2018. *Asian Am J Psychol*; 2023.
43. Park S, et al. The effects of the affordable care act on health care access and utilization among Asian American subgroups. *Med Care*. 2019;57(11):861–8.
44. Budiman A, Ruiz N. Key facts about Asian Americans, a diverse and growing population. 2021 09/01/2021; Available from: <https://www.pewresearch.org/fact-tank/2021/04/29/key-facts-about-asian-americans/>. Accessed 1 Sept 2021.
45. Educational Attainment in the United States: 2020. 2021 08/20/2021]; Available from: <https://www.census.gov/data/tables/2020/demo/educational-attainment/cps-detailed-tables.html>. Accessed 20 Aug 2021.
46. Profile: Asian Americans. 2021 [cited 2021 09/01/2021]; Available from: <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=63>. Accessed 1 Sept 2021.
47. Substance Abuse and Mental Health Services Administration. Key substance use and mental health indicators in the united states: results from the 2019 national survey on drug use and health. Rockville, Maryland: Substance Abuse and Mental Health Services Administration; 2021.
48. Lee S, et al. Model minority at risk: expressed needs of mental health by Asian American young adults. *J Community Health*. 2008;34(2):144.
49. Hahm HC, et al. Fractured identity: a framework for understanding young Asian American women’s self-harm and suicidal behaviors. *Race Soc Probl*. 2014;6(1):56–68.
50. Okazaki S. Treatment Delay Among Asian-American Patients With Severe Mental Illness. *Am J Orthopsychiatry*. 2000;70(1):58–64.
51. Spencer MS, et al. Discrimination and mental health-related service use in a national study of Asian Americans. *Am J Public Health*. 2010;100(12):2410–7.
52. Choi NG, Kim J. Utilization of complementary and alternative medicines for mental health problems among Asian Americans. *Community Ment Health J*. 2010;46(6):570–8.
53. Cheng AW, et al. Model minority stereotype: influence on perceived mental health needs of Asian Americans. *J Immigr Minor Health*. 2017;19(3):572–81.
54. DiBenedetti C, Zimmerman GM, Fridel EE. Examining the etiology of Asian American suicide in the United States. *J Racial Ethn Health Disparities*; 2024. <https://doi.org/10.1007/s40615-024-02039-4>.
55. Bauer AM, Chen C-N, Alegría M. Associations of physical symptoms with perceived need for and use of mental health services among Latino and Asian Americans. *Soc Sci Med*. 2012;75(6):1128–33.
56. Chun KM, Akutsu PD, et al. Assessing Asian American family acculturation in clinical settings: guidelines and recommendations for mental health professionals. In: Trinh N-H, et al., editors. *handbook of mental health and acculturation in Asian American Families*. Totowa, NJ: Humana Press; 2009. p. 99–122.
57. Alegría M, Alvarez K, Falgas-Bague I. Clinical care across cultures: what helps, what hinders, what to do. *JAMA Psychiatry*. 2017;74(9):865–6.
58. Lin K-M, Cheung F. Mental health issues for Asian Americans. *Psychiatry Serv*. 1999;50(6):774–80.
59. Sonik RA, et al. Depression treatment preferences by race/ethnicity and gender and associations between past healthcare discrimination experiences and present preferences in a nationally representative sample. *Soc Sci Med*. 2020;253:112939.
60. Santiago CD, Miranda J. Progress in improving mental health services for racial-ethnic minority groups: a ten-year perspective. *Psychiatr Serv*. 2014;65(2):180–5.
61. Sentell T, Shumway M, Snowden L. Access to mental health treatment by English language proficiency and race/ethnicity. *J Gen Intern Med*. 2007;22(2):289–93.
62. Huey SJ, Tilley JL. Effects of mental health interventions with Asian Americans: a review and meta-analysis. *J Consult Clin Psychol*. 2018;86(11):915–30.
63. Hwang W-C, et al. Culturally adapted cognitive-behavioral therapy for Chinese Americans with depression: a randomized controlled trial. *Psychiatric Serv*. 2015;66(10):1035–42.
64. Hahm HC, et al. Feasibility, preliminary efficacy, and safety of a randomized clinical trial for Asian Women’s Action for Resilience and Empowerment (AWARE) intervention. *Am J Orthopsychiatry*. 2019;89(4):462–74.
65. Kormendi NM, Brown AD. Asian American mental health during COVID-19: a call for task-sharing interventions. *SSM - Mental Health*. 2021;1:100006.

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