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Asian, Latinx, or Multiracial? Assessing Filipinxs' Health Conditions and Outcomes by Aggregate Ethnic Category

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Abstract

Introduction Filipinxs are the second-largest Asian subgroup in the USA. While Filipinxs are most often considered Asian when constructing aggregate ethnic categories, recent research has identified a trend of a small portion of Filipinxs identifying as Latinx or multiracial. However, little research had addressed how identification with different aggregate ethnic categories may have implications for identifying health disparities among Filipinxs and how these compare to non-Hispanic whites.

Methods Bivariate and multivariable regression analyses using 2011–2018 California Health Interview Survey data, comparing Asian Filipinxs, Latinx Filipinxs, and multiracial Filipinxs.

Results In bivariate analyses, Asian Filipinxs had a higher prevalence of diabetes than Latinx or multiracial Filipinxs. After controlling for sociodemographics, Latinx Filipinxs had significantly lower odds of having diabetes or heart disease than Asian Filipinxs. Compared to non-Latinx Whites, Asian Filipinxs reported higher odds of being in fair/poor health, obese or overweight, high blood pressure, and diabetes, multiracial Filipinxs reported higher odds of being obese or overweight, and Latinx Filipinxs reported lower odds of heart disease.

Discussion These findings suggest emerging differences in health linked to identification with different ethnic categories, underscoring the need to investigate nuances among Filipinxs in future research as well as highlighting the utility of emerging sociological insights in health research.

Keywords Filipino American · Filipinx · Identity · Ethnicity and race · Health disparities

Background

In the USA, Filipinxs are the second largest subgroup among Asian Americans overall, with the most Filipinxs residing in California [1]. Historically, Filipinxs have played essential roles in the American caregiving economy [2–8] and healthcare systems [9, 10], but their own health needs have gone under-addressed [11]. A growing body of literature has identified substantial disparities in chronic health among Filipinxs such as diabetes and cardiovascular health

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challenges [11–16], leading to increasing recognition of the need for specific interventions tailored to this important population [17–19]. Identification of these issues and subsequent prioritization of policies and interventions to address these problems include many meaningful barriers, including the perceptions of Asians as a model minority [20]. Given this population's rank among Asian subpopulations coupled with these under-addressed health issues, improving these health disparities will become increasingly important not only to ensure these individuals have their rights to health protected but also to manage healthcare expenditures overall.

The complexities of race and ethnicity and how researchers incorporate these constructs as variables in health research have long been recognized [21, 22], leading to a need to continuously examine how the operationalization of such constructs may impact identification of health issues. From the sociological perspective, "race" is linked to physical differences that groups regard as socially significant, while "ethnicity" encompasses shared culture, which can include shared practices. Moreover, sociologists explore how race and ethnicity are socially constructed by social, economic, and political forces, as well as how individuals identify with one or more race and/or the ethnicity. "Ethnoracialization" refers to ways in which individuals may create their own group identities (like ethnicity) based on how they understand the social constructs they are impacted by [23]. For example, prior sociologic research has documented that subgroups of Mexicans may identify as Black [24], with public health research indicating that Black-identified Mexicans may differ from White-identified Mexicans on outcomes like self-reported health [25] and may require specific considerations when developing interventions to ensure that programs are appropriately tailored [26]. As such, emerging sociological insights like these may become increasingly important for researchers interested in racial and ethnic health disparities.

While Filipinxs are most often categorized as Asian American, more recent advancements have examined the ways in which Filipinxs may identify as Latinx [27, 28] and multiracial [29]. Historically, the Philippines was colonized by Spain, leading to substantial influences on culture (e.g., deep-rooted Catholicism, language, and surnames, as examples) that shape the ethnic identities of Filipinxs in the USA, including the identification as Latinx rather than Asian [28]. These insights provide a key need to critically examine the ways in which identification with differing aggregate ethnic categories may have implications for health. For example, the Hispanic or Latinx paradox [30, 31] is an epidemiological phenomenon pointing to better health outcomes among Hispanic and Latinx-identifying Americans compared to non-Latinx whites, though it is important to note that there exist several critiques over the existence of this advantage. For example, while the Latinx paradox posits that Latinx may initially be healthier when first immigrating to America, over time, acculturation and marginalization as Latinx live in the USA may erode these health advantages and lead to poorer health outcomes [30, 32–34]. One explanation from prior research explaining these better outcomes is that many Latinx may live in areas with a high-density of other Latinx, thereby generating sociocultural ethnic enclave advantages that lead to better health outcomes [35–37]; whether this may extend to Filipinxs identifying as Latinx remains unknown.

To date, no study has addressed whether Filipinxs' aggregate ethnic category has any implications for their health. Importantly, not only would differences between these groups warrant further investigations of health behaviors and perceptions that may lead to differential interventions, but it would also have implications for the way health needs may be identified for these groups. The purpose of this study was to assess whether differences in health conditions and outcomes exist among Filipinx adults based on aggregate ethnic category, and whether identification of health disparities compared to non-Hispanic whites is impacted by differential ethnic categories. For the purposes of this study, we will refer to subcategories of Filipinxs using their ethnic category (e.g., Latinx Filipinxs, Asian Filipinxs, multiracial Filipinxs).

Methods

We used 8 years of publicly available data from adults included in the 2011–2018 cross-sectional cycles of the California Health Interview Survey (CHIS). The largest state health survey in the country, as of 2018, CHIS is a random-dial telephone survey using a multistage sampling design conducted in English and Tagalog, among other languages, in order to improve accessibility. Initiated in 2001 as a biennial survey, the CHIS data has been collected annually since 2011. We combined single year datasets from 2011 to 2016 and the 2-year 2017–2018 combined dataset to produce our dataset for this analysis. While 2017 and 2018 single-year files were available, disaggregated Asian subgroup data (including specific data on Filipinx adults) was not available in the 2018 single-year file, necessitating the use of the combined 2017–2018 dataset.

Race and Ethnicity

Race and ethnicity were assessed through self-report. In CHIS, participants were asked what ethnicity they identified as (e.g., Hispanic or Latinx vs Asian) and were then asked about specific racial group (e.g., Filipinx). Filipinxs who did not have a single ethnic group they identified with most were classified as multiracial. There were 2373 Filipinx adults included in our study sample, with 2018 (85%) identifying as Asian, 84 (4%) identifying as Latinx, and 271 (11%) identifying as multiracial. A total of 100,664 non-Hispanic whites

were included in our analyses when a referent group to identify health disparities was needed.

Health Condition and Outcomes

Health condition measures included whether respondents were obese or overweight, self-reported health status, disability, and serious distress. Self-reported height and weight were used in order to calculate BMI. Non-Hispanic whites with BMIs of 25.0 or above were classified as overweight or obese. Per the World Health Organization guidelines, Asians with BMIs of 23.0 or above were classified as overweight or obese [38]. Because Filipinxs are considered Asian in large population-based efforts, we used the Asian BMI threshold for all Filipinxs in this sample, even if they identified as Latinx or multiracial.

Self-reported health status included excellent, very good, good, fair, and poor and was dichotomized into those reporting fair or poor health compared with those who did not. Disability was a CHIS-constructed variable where participants were considered disabled if they indicated they had any of the following conditions: blind, deaf, or have a severe vision or hearing problem; difficulty learning, remembering, or concentrating; difficulty dressing, bathing, or getting around the house; difficulty going outside the home alone to shop or visit a doctor's office; difficulty working at a job or business; or at least one limitation in one or more basic activity like walking, climbing stairs, etc. Serious distress in the past year was assessed using the Kessler 6 scale, which has a range of 6–30, with scores of 13 or higher indicative of experiences of serious mental distress in the past year [39]. Health outcome measures used for this study included self-report of having any previous diagnosis of heart disease, diabetes, high blood pressure, and any occurrence of asthma.

Covariates

We included the following demographic variables as covariates in multivariable models: age, sex, marital status, employment, education, annual income, health insurance status, percent life spent in the USA, and English proficiency. Age was classified into three categories: 18–44, 45–64, and 65+. We classified marital status into those who were either married or living with a partner and those who were not. Educational attainment was classified as high school, some college, and bachelor's degree or more. Annual income was classified using federal poverty guidelines (FPG) into ≤138% of FPG, 139–400% FPG, and > 400% FPG, with respondents categorized according to the FPG in their year of participation (e.g., 2011 FPG for 2011 CHIS respondents, 2015 FPG for 2015 CHIS respondents, etc.). Self-reported percent life spent in the USA was categorized into 0–60%, 61–99%, and 100%. English proficiency was classified based on whether participants either spoke English only or had strong English proficiency versus those who did not.

Statistical Analyses

We first created descriptive analyses to assess the distribution of demographic characteristics and health conditions and outcomes across the Filipinx ethnic categories and conducted chi-squared tests to assess differences in our study sample by ethnic identity (e.g., Latinx vs Asian vs multiracial). We performed multivariable logistic regressions to assess differences by ethnic category among the Filipinx adults included in our sample, first comparing Latinx Filipinxs and multiracial Filipinxs to Asian Filipinxs as a referent category to detect differences between ethnic categories, then comparing all Filipinxs to non-Hispanic whites to contextualize the identification of broader health disparities. We then used our multivariable models to assess differences between Latinx Filipinxs compared to non-Latinx Filipinxs on each of our health measures. Our regression models adjusted for all sociodemographic covariates (e.g., sex, income, education, marital or partnered status, employment, age, percent life in the USA, insurance status, English proficiency, and survey year). Adjusted odds ratios and 95% confidence intervals (CIs) are presented for multivariable results. Sample weights specific to each iteration of CHIS included in our dataset were used to account for the complex sampling design and to obtain correct variance estimations for the bivariate and multivariable analyses. We performed all analyses using Stata 15.

Ethics Approval

Because this paper used de-identified, publicly available data, we did not seek institutional review board approval.

Results

Table 1 displays sociodemographic information for our sample. Briefly, we identified significant differences across Asian, Latinx, and multiracial-identifying Filipinxs for the following sociodemographic factors: age, sex, English proficiency, and percent life spent in the USA. Latinx and multiracial-identifying Filipinx were younger than Asian-identifying Filipinxs and were far more likely to have spent their entire life in the USA than Asian-identifying Filipinxs.

Table 2 displays measures of health conditions and outcomes for our sample. There was a significant difference in diabetes by ethnic categories. Specifically, Asian Filipinxs had the highest prevalence of diabetes (12.9%), followed by multiracial Filipinxs (4.1%), and Latinx Filipinxs had the lowest (2.9%). No other health conditions and outcome measures were significantly different across the three ethnic categories.

Table 1 Weighted demographic characteristics for Filipinx adults, 2011–2018 CHIS

	Asian	Latinx	Multiracial	*p* value
Male	45.0	51.6	54.2	.04*
Age				
18–44	55.3	71.6	78.2	
45–64	30.0	25.1	14.2	.00-**
65+	14.7	3.3	7.6	
Income				
≤138% of FPG	20.7	14.1	21.1	
139–400% FPG	37.4	57.3	46.8	.34
>400% FPG	41.9	28.6	32.1	
Education				
High school	18.6	45.2	21.7	
Some college	26.0	18.7	33.3	.02*
Bachelor's degree or more	55.5	36.1	45.0	
Employed	65.9	62.8	69.6	.78
Married or living with partner	54.2	43.1	42.5	.22
Speaks English only, very well, or well	95.5	99.2	100	.04*
Percent life spent in the USA				
0–60%	43.8	0.1	4.5	
61–99%	22.8	5.5	8.0	.00-**
100%	33.4	93.9	87.5	
Insured	90.9	79.8	89.8	.21

*$p < .05$

**$p < .001$

Table 3 displays odds ratios and 95% confidence intervals for the association between ethnic identity and health conditions and outcomes using Asian Filipinxs as a referent, after adjusting for all covariates. Compared to Asian Filipinxs, Latinx Filipinxs had lower odds of reporting diabetes (OR =

Table 2 Health condition and outcomes for Filipinx adults by aggregate ethnic category, 2011–2018 CHIS

	Asian	Latinx	Multiracial	*p* value
Health condition				
Fair/poor health	16.3	11.4	18.2	.69
Obese or overweight	72.6	71.3	72.8	.98
Serious distress	8.3	12.9	9.6	.61
Disability	26.9	26.3	19.4	.35
Health outcomes				
High blood pressure	33.8	22.1	18.0	.11
Diabetes	12.9	2.9	4.1	.00*
Asthma	17.9	25.8	18.7	.60
Heart disease	6.1	2.5	7.4	.57

*$p < .05$

**$p < .001$

Table 3 Adjusted odds ratios for health condition and outcomes for Filipinx adults by ethnic aggregate category, with Asian Filipinxs as referent

	Latinx (95% CI)	Multiracial (95% CI)
Health condition		
Fair/poor health	0.27 (0.02–4.55)	1.00 (0.33–2.99)
Obese or overweight	0.68 (0.14–3.37)	0.76 (0.29–1.97)
Serious distress	0.55 (0.03–11.67)	0.66 (0.26–2.84)
Disability	0.33 (0.07–1.55)	0.47 (0.17–1.34)
Health outcomes		
High blood pressure	0.51 (0.12–2.14)	0.58 (0.16–2.08)
Diabetes	0.15 (0.03–0.89)*	0.43 (0.08–2.23)
Asthma	1.70 (0.44–6.51)	0.44 (0.16–1.24)
Heart disease	0.07 (0.01–0.35)**	1.50 (0.15–15.47)

Controlling for sex, income, education, marital or partnered status, employment, age, percent life spent in the US, insurance status, English proficiency, and survey year

*$p < .05$

**$p < .001$

Table 4 Adjusted odds ratios for health condition and outcomes for Filipinx adults by aggregate ethnic category, with non-Hispanic whites as a referent

	Asian (95% CI)	Latinx (95% CI)	Multiracial (95% CI)
Health condition			
Fair/poor health	1.73 (1.19–2.51)*	0.40 (0.03–6.21)	2.07 (0.81–5.29)
Obese or overweight	2.79 (2.07–3.76)**	2.05 (0.58–7.28)	2.47 (1.17–5.21)*
Serious distress	0.98 (0.57–1.69)	0.37 (0.02–7.20)	0.70 (0.19–2.55)
Disability	1.11 (0.79–1.57)	0.42 (0.11–1.60)	0.61 (0.25–1.46)
Health outcomes			
High blood pressure	2.16 (1.60–2.92)**	1.10 (0.31–3.85)	1.07 (0.34–3.38)
Diabetes	2.94 (1.91–4.54)**	0.35 (0.09–1.31)	0.77 (0.16–3.82)
Asthma	1.45 (1.00–2.11)	1.86 (0.54–6.32)	0.63 (0.24–1.62)
Heart disease	1.27 (0.77–2.08)	0.17 (0.04–0.70)*	2.17 (0.20–23.19)

Controlling for sex, income, education, marital or partnered status, employment, age, percent life spent in the USA, insurance status, English proficiency, and survey year

*$p < .05$

**$p < .001$

0.15; 95% CI = 0.03–0.89) and heart disease (OR = 0.07; 95% CI = 0.01–0.35). Multiracial Filipinxs did not differ significantly from Asian Filipinxs on any health conditions and outcomes measures.

Table 4 displays odds ratios and 95% confidence intervals for the association between ethnic identity and health conditions and outcomes using non-Hispanic whites as a referent, and adjusted for all covariates. Asian Filipinxs had higher odds of fair or poor health (OR = 1.73; 95% CI = 1.19–2.51), high blood pressure (OR = 2.16; 95% CI = 1.60–2.92), and diabetes (OR = 2.94; 95% CI = 1.91–4.54) compared to non-Hispanic whites. Both Asian Filipinxs (OR = 2.79; 95% CI = 2.07–3.76) and multiracial Filipinxs (OR = 2.47; 95% CI = 1.17–5.21) had higher odds of being obese or overweight compared to non-Hispanic whites. Latinx Filipinxs did not have any statistically significant disparities across health conditions and outcomes examined compared to non-Hispanic whites, though they did have significantly lower odds of having heart disease (OR = 0.17; 95% CI = 0.04–0.70). Asian Filipinxs had higher odds of reporting asthma (OR = 1.45; 95% CI = 1.00–2.11) compared to non-Hispanic whites, though this was observed with marginal significance at p value = 0.051.

Discussion

In this study, we found differences in health conditions and outcomes across ethnic categories for Filipinxs, supporting the importance of understanding the role of ethnic identifications in this population's health disparities. Specifically, we found that Latinx Filipinxs had lower odds of diabetes and heart disease when compared to Asian Filipinxs in multivariable models; when compared to non-Hispanic whites, Asian Filipinxs demonstrated higher odds of reporting fair or poor health, high blood pressure, diabetes, and being obese or overweight among the measures included in this study, while Latinx Filipinxs did not have any significant health disparities and had significantly lower odds of heart disease. Multiracial Filipinxs did not appear to differ from Asian Filipinxs on any measure, but did report higher odds of being obese or overweight compared to non-Hispanic whites. Taken together, these findings provide insight into how emerging differences in identification with different aggregate ethnic identities may be linked to differential health patterns among Filipinxs, marking an important use of emerging sociological insights into ethnic identity among Filipinxs when conducting health research.

The most prominent findings from this research include the comparatively better health that Latinx Filipinxs demonstrate compared to Asian Filipinxs and non-Hispanic Whites, building off initial research from sociology documenting how differential life experiences among Filipinxs may be translating into not only varying identification with an aggregate racial category [27, 28] but also in varying manifestations in health. The results demonstrated among Asian Filipinxs align with prior research concerning Filipinxs as a whole, which has pointed to various health disparities [11, 40–42]. Model minority conceptions thus may have the most consequences for Asian Filipinxs, as they not only suffer from disparities but also may have them most obscured by assumptions about Asians as a whole. Next, the lack of significant differences among multiracial Filipinxs compared to Asian Filipinxs and non-Hispanic whites may be due to a number of factors, including heterogeneity in the racial makeup of multiracial Filipinxs, as these Filipinxs may also be Asian, white, or both. Additionally, multiracial Filipinxs are prime candidates for future research, as their ethnic identities may blend and change depending on what races they identify with [29]. While this research did not parse out specific races that multiracial Filipinxs identified with, future work can do so in a way that may then enable more fruitful assessments of the health behaviors and outcomes as well as social conditions among this subgroup of Filipinxs.

Overall, the most immediate need for future research should focus on the drivers behind these observed health effects, particularly between Latinx Filipinxs and Asian Filipinxs. There are a series of plausible drivers; for example, the same factors that drive some Filipinxs to identify as Latinxs (e.g., growing up in predominantly Latinx communities, attending schools with primarily Latinx populations, befriending more Latinxs than Asians) identified in prior sociological research [28] may also lead to differential health patterns. Latinx Filipinxs may also plausibly benefit from privileges that Asian Filipinxs do not (e.g., benefits related to community cohesion based on actively identifying as Latinx vs identifying by default as Asian without the same community benefits), may have different patterns of behavior that lead to differential development of health conditions and outcomes, or may be impacted by broader systems of power and privilege in differential ways that produce stressors and advantages that then lead to the observed differences in health conditions and outcomes. Reverse causality may also be present, as healthier Filipinxs may be more likely to identify as Latinx than Asian.

The goal of this research is not to hypothesize the drivers behind these observed effects, but rather to reinforce the need for further work that can build upon this research and other work in sociology and other social sciences. Nuanced perspectives from these fields can lead to more holistic understandings of why observed health differences like these exist [43, 44], so it remains critically important that researchers interested in health disparities related to race and ethnicity engage with work from these fields (e.g., sociology, ethnic studies, and more) in developing research questions and interpreting results. Following work that can expand upon the drivers of these differences, researchers and policymakers can consider tailoring interventions and programs to specific needs of Filipinxs by ethnic category, as these differing life experiences that have led to different identification with these ethnic categories may lead to different challenges related to health. A more comprehensive understanding of the factors leading to these observed differences in health condition may also warrant further research in how Latinx and Asian Filipinxs differ in other ways related to health, including health services utilization and how health systems may cater to these groups differently.

There are several limitations of this research worth noting. First, though we relied on a dataset combining several years of data from a large survey, we obtained high standard errors for several of our multivariable analyses. While CHIS indeed is one of the most progressive data sources in the country in allowing disaggregated analyses, it is not, by nature, explicitly focused on Filipinx adults. Our sample sizes of Latinx and multiracial Filipinxs were small, making it more difficult to observe more subtle differences across our measures. Previously, Filipinx-specific primary research has been conducted to identify health needs in specific communities of Filipinxs [12–14]; future studies specifically focused on this topic would benefit from primary data collection, if possible, to not only increase sample sizes but also to assess some underlying social conditions, behaviors, and structural factors that may contribute to these health differences. It is thus important to recognize that insignificant p values should not be interpreted as a lack of differences between groups, as a better-powered study may be able to identify differences we were not able to. Second, this paper utilizes California-specific data; as such, insights may not be applicable to Filipinxs across the country. Further research certainly is worth conducting in many states with significant populations of Filipinxs, including New York, New Jersey, Hawaii, Texas, Florida, and Illinois, among others [1]. Finally, we relied on self-reported data. Respondents who perceive any stigma associated with health conditions, like distress or having excess weight, may underreport these behaviors on this survey and skew results. Studies that collect data on these measures directly, rather than through self-report, may alleviate these issues.

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Data Availability All analyses utilized the public use files for the 2011–2018 cycles of CHIS.

Code Availability The Stata code used to produce these analyses is available upon request from the corresponding author.

Declarations

Conflict of Interest The authors have no conflicts of interest to declare; at time of publication, ACA was employed by a for-profit healthcare consulting firm.

Disclaimer This paper represents the views of the authors and does not necessarily reflect the view of any institution or sponsors.

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