Centering Asian American Women's Health: Prevalence of Health Care Discrimination and Associated Health Outcomes

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Abstract

Asian American women routinely face multiple and intersectional forms of discrimination based on their marginalized social identities, including during their interactions within the US health care system. However, most research on discrimination against Asian American women is limited by its exclusive focus on race-, gender-, or language-based forms of discrimination; and research has yet to assess if their discriminatory health care experiences are associated with poor health outcomes. To address this gap, we centered the experiences of Asian American women (N=905) from the Association of American Medical Colleges Biannual Consumer Survey of Health Care Access, a national survey of health care consumers conducted from 2011 to 2020. Prevalence rates were established for unfair treatment due to race, gender, culture, language, age, health insurance, and sexual orientation. Multiple regression models were used to assess how these discriminatory experiences were associated with health and functioning outcomes. Findings demonstrate a high prevalence (32.0%) and wide range of discriminatory experiences were significantly associated with poorer health and functioning outcomes, even after controlling for demographic influences. Results highlight the need for further development of culturally sensitive medical practices and policies to improve the delivery of health care for Asian American women.

Keywords Asian American women · Health care · Discrimination · Health disparities · Intersectionality

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Recent growth of anti-Asian sentiment during the COVID-19 pandemic has increased public attention to the issue of discrimination against individuals of Asian descent in the USA. During this time, COVID-related discrimination disproportionately affected Asian American women,¹ who experienced hate crimes 2.3 times more often than Asian American men [2]. Although the USA has seen a stark increase in anti-Asian sentiment, discrimination toward Asian American women long precedes the recent COVID-19 pandemic. Earlier studies show that Asian American women routinely face multiple forms of discrimination based on the unique intersection of their race, gender, and national origin [3].

Understanding the compounded effects of racism, sexism, and xenophobia on Asian American women requires adopting an intersectional perspective. Intersectionality is



¹ The authors acknowledge that the term "Asian American" may be incomplete and not capture the diverse identities of Asians who may not self-identify as American. In this paper, we use "Asian American" to refer to individuals of Asian descent residing in the USA [1]

a conceptual framework that acknowledges the interlocking nature of an individual's multiple social identities, including their race, culture, gender, sexual orientation, religion, and class. These social identities interact to impact the individual's lived experiences, including those of discrimination and oppression [4, 5]. An intersectional perspective recognizes both the collective and unique experiences among individuals with overlapping marginalized social identities (e.g., being Asian and a woman). Other frameworks that do not consider intersectionality may only focus on the assumed uniformity among individuals of the same social category, leading to policy changes (or lack thereof) that benefit some group members at the expense of others [6]. Thus, multicultural and feminist scholars have advocated for the use of intersectional approaches in research to comprehensively capture the oppressive experiences of women of color [4-7]. Additionally, intersectionality scholars have also emphasized the importance of centering the unique and complex identities within members of multiple marginalized groups [5, 8]. Accordingly, the current study aimed to conduct an in-depth, nuanced investigation of Asian American women's health care experiences in relation to health outcomes.

When applying intersectional frameworks to Asian American women, scholars emphasize that Asian American women experience unique forms of oppression in addition to the shared discriminatory experiences and microaggressions faced by Asian Americans of all genders. For example, Asian Americans across all genders are subject to similar microaggressions regarding presumptions of being foreign (e.g., often referred to as the "perpetual foreigner") regardless of national origin and citizenship status [9]. However, compared to Asian American men, Asian American women are more often exoticized or fetishized based on stereotypes that they are submissive and sexually available [9]. These prejudicial attitudes further contribute to higher risk for sexual harassment and violence toward Asian American women [10]. Asian American women are also often excluded from professional opportunities in the workplace due to stereotypes that they lack assertiveness or leadership characteristics which are based in gender- and race-based stereotypes [11]. These forms of racial and gender-based discrimination are quite prevalent among Asian American women, with a nationally representative study showing that 60% of Chinese American women and 36% of Japanese American women experience discrimination at some point in their lives [12].

Prevalence of Health Care Discrimination Toward Asian American Women

Despite these common discriminatory experiences and stereotypes unique to Asian American women, most scholarly work on Asian American experiences in health care have collapsed samples across men and women. These studies have found that discrimination toward Asians is common within the US health care system. For example, a nationally representative study found that 13.0% of Asian American adults reported experiencing racial discrimination in their health care encounters [13]. Another study with a nationally representative sample found that 11.2% of Asian American adults reported receiving unfair treatment by health care providers due to their insurance type, English-language abilities, race/ethnicity, or gender [14]. Similarly, a qualitative study with a sample of Hmong men and women emphasized discriminatory experiences in health care due to both their race/ethnicity and language barriers; however, prevalence of discriminatory experiences was not reported in this study [15]. Studies centering the experiences of Asian American women in health care are notably scarce. A literature search revealed only one study that specifically examined discrimination in health care using a sample of Korean American women. The study found that Korean American women's experiences with nonspecific health care discrimination (measured by the Everyday Discrimination Scale [16]) had an indirect effect on rates of breast cancer screening through mistrust in providers [17]. Prevalence of discrimination was also not reported in this study.

Although these studies provide useful insight in to Asian American women's health care experiences, the prevalence of discrimination toward Asian American women in health care has yet to be explored. Further, the majority of research to date has primarily focused on racial-, gender-, or language-based discrimination which does not fully capture the unique experiences of health care discrimination influenced by other demographic factors such as age, culture, religion, class, and sexual orientation. Indeed, Asian American women vary widely in cultural identities, representing more than 50 ethnic groups who speak more than 100 languages, have a variety of religious affiliations, and portray a broad range of socioeconomic classes [5, 18], all of which may lead to different perceptions and experiences with health care providers. Thus, more research is needed to understand the prevalence of health care discrimination across relevant demographic factors.

Associations Between Health Care Discrimination and Health Outcomes in Asian American Women

Beyond the lack of information on the prevalence of discriminatory experiences for Asian American women, research has yet to evaluate to what extent discrimination in health care translates to measurable health outcomes in this population. Previous studies on discrimination and health have primarily focused on everyday discrimination toward Asian American women which may or may not include discriminatory experiences in the context of health care. These studies have found that everyday discriminatory experiences are associated with higher odds of physical health problems (e.g., chronic headaches) and mental health problems (e.g., major depressive disorder, suicidal ideation, eating disorders; [19–21]).

Discrimination in health care may be particularly salient to explore in relation to health outcomes. According to research on non-Asian racial minority groups, health care discrimination may worsen health outcomes by (1) directly acting as a chronic stressor which deteriorates the body over time, (2) indirectly influencing physicians' biases and treatment decisions, and (3) indirectly influencing patients' utilization and engagement in health care services [13, 22]. Indeed, based on studies with samples of both Asian American men and women, experiences of both identity-based and nonspecific discrimination in health care were significantly associated with poorer health, dissatisfaction, and avoidance of care [13–15, 23]. Similarly, the study on Korean American women found that nonspecific discrimination in health care was associated with higher mistrust and avoidance of care [17]. However, research has yet to assess how health care discrimination specifically toward Asian American women translates to worse physical and mental health outcomes. Further, research has yet to assess health care discrimination from an intersectional lens that includes race, gender, language, health insurance, culture, and sexual orientation-based discrimination in relation to health outcomes which would better capture the various forms of health care discrimination that may take place. This information would be useful in establishing the potential harm of these discriminatory experiences which may be mitigated through clinical trainings, culturally sensitive clinical interventions, or policy changes to protect the health of this population.

The Current Study

The prevalence of health care discrimination toward Asian American women remains largely unknown, particularly when adopting an intersectional framework. Research has also yet to evaluate if discriminatory experiences toward Asian American women are associated with poor physical and mental health. The current study sought to address these gaps by evaluating the prevalence of race, gender, cultural, language, health insurance, and age-based discrimination within a national sample of Asian American women. We also assessed whether experiences of health care discrimination were associated with higher odds of chronic morbidities (defined as chronic physical conditions or chronic depression) and functional impairments (defined as functional limitations due to physical or mental health problems). Since the first aim of the study was exploratory in establishing prevalence rates, no a priori hypotheses were established. Given that everyday discrimination negatively affects the health of Asian American women, we hypothesized that discrimination by health care providers would be positively associated with poorer health and functioning outcomes.

Method

The current study used aggregated data from 17 assessment waves (2011-2020) conducted by the Association of American Medical Colleges (AAMC)'s biannual Consumer Survey of Health Care Access, a national survey that assesses consumers' recent experiences with health care services. Participants were recruited from a large online panel (1.5 million in the USA) and were eligible for participation if they indicated needing care within the past 12 months. Data were collected twice annually with new participants at every wave, with each wave consisting of approximately 2000 core participants and 1500 from select minority groups. Participants who completed surveys were compensated through a point-based system, with 75,000-90,000 points resulting in a \$25 gift card/check [24]. For the current study, we selected data from waves in which participants were asked about discriminatory experiences with health care providers (Waves 4–5 and 10–19). From these waves, we selected participants who identified as Asian and woman and who endorsed being able to access care within the last year, resulting in a final sample of N = 905.

Measures

Discrimination by Provider

Recent discrimination by a health care provider was assessed by eight items asking about whether participants experienced unfair treatment by their health care provider based on their insurance, gender, age, race/ethnicity, language, culture, religion, and sexual orientation during their most recent medical care visit. All items were ranked on a binary scale (0=No, 1=Yes).

Health and Functioning Outcomes

Health and functioning outcomes were assessed by four items asking whether participants had any chronic physical conditions (e.g., arthritis), whether they had chronic depression, whether they experienced physical health functional impairment (i.e., being limited in daily activities because of physical problems), and whether they experienced mental health functional impairment (i.e., being limited in daily activities because of mental/emotional problems). All items were ranked on a binary scale (0 = No, 1 = Yes).

Table 1 Demographics **Data Analysis** Frequencies were used to estimate prevalence of discrimination by provider. Multiple logistic regression models were used to examine associations between discrimination by provider and health outcomes. Given the large sample size and minimal missing data (<10% missing data across all variables), pairwise deletion was used for each model [25]. Demographic factors including education, income, age, sexual orientation, and employment status were included as covariates. Assessment wave was explored as a potential covariate but was not associated with any predictors or outcomes of interest and thus not included in the final analyses. All independent variables (i.e., insurance, gender, age, race/ ethnicity, language, culture, religion, and sexual orientationbased discrimination) and the covariates were entered simultaneously in a series of logistic regression models to predict each physical and mental health outcome separately (i.e., chronic physical condition, chronic depression, physical health impairment, and mental health impairment). All analyses were conducted using IBM SPSS Statistics 25.0. Due to the binary nature of all outcomes, regression results are

Results

Sample Characteristics

Participant demographics are illustrated in Table 1. The modal demographic characteristics of the sample were ages 25–34 (34.0%), heterosexual or straight (89.9%), full-time employees (40.7%), with a college degree (46.5%), and a median household income of \$50,000-\$74,999 (24.9%).

presented in odds ratios (ORs) for ease of interpretability.

Prevalence of Health Care Experiences and Health Outcomes

Table 2 represents the prevalence of experiences of discrimination by health care providers and health outcomes. Approximately one third (32.0%) of Asian American women reported experiencing some form of discrimination by their health care provider during their most recent medical care visit. The most common forms of discrimination included being treated unfairly due to type of insurance (24.6%), followed by unfair treatment based on one's age (17.7%), gender (16.6%), language (15.4%), race (14.6%), culture (12.4%), sexual orientation (12.2%), and religion (11.8%). In terms of physical health outcomes, over half (50.9%) of the sample reported having at least one chronic physical condition, and 28.0% of the sample reported being functionally

Demographics	%
Age	
18–24	23.3
25-34	34.0
35–44	20.3
45–54	11.7
55-64	6.4
65 and above	4.2
Income	
Under \$25,000	11.2
\$25,000-49,999	19.6
\$50,000-74,999	24.9
\$75,000–99,999	18.1
\$100,000-124,999	10.7
\$125,000-149,999	7.4
\$150,000 and over	8.1
Educational Level	
Less than high school	0.2
Some high school	1.3
High school graduate	9.6
Some college	22.0
College graduate	46.5
Post-graduate	20.3
Sexual Orientation	
Heterosexual	89.9
Gay or lesbian	2.7
Bisexual	6.1
Other	1.3
Employment Status	
Employed full time	40.7
Employed part time	16.8
Home maker	18.3
Unemployed	8.3
Student	10.7
Retired	5.2

% = percent of sample who endorsed the answer

impaired by their physical health. Regarding mental health outcomes, 17.0% reported having chronic depression and 21.8% reported being functionally impaired by their mental health.

Associations Between Discrimination and Health Outcomes

Results indicated that discrimination by a medical provider during the most recent medical visit was significantly associated with poorer health and functioning outcomes in Asian American women (Table 3). For physical health, all forms of discrimination were significantly associated

Type of Discrimi- nation by Provider	%	Health and Functioning Outcomes	%
Any form	32.0	Chronic Physical Condition	50.9
Insurance	24.6	Chronic Depression	17.0
Age	17.7	Physical Health Impairment	28.0
Gender	16.6	Mental Health Impairment	21.8
Race	14.6		
Language	15.4		
Culture	12.4		
Religion	11.8		
Sexual-orientation	12.2		

 Table 2
 Prevalence of Recent Discrimination by Health Care Provider and Health

% = percent of sample who endorsed "yes."

with higher odds of having a chronic physical condition $(ORs = 1.96-3.04, p's \le 0.01)$. For mental health, all forms of discrimination, except for insurance-based discrimination, were significantly associated with higher odds of chronic depression $(ORs = 1.94-3.18, p's \le 0.05)$. For health functional impairment, all forms of discrimination were significantly associated with higher odds of physical health impairment $(ORs = 2.26-3.40, p's \le 0.001)$. All forms of discrimination, were associated with higher odds of mental health impairment $(ORs = 2.80-4.80, p's \le 0.01)$.

Discussion

The current study is among the first to establish general prevalence rates of discrimination toward Asian American women within the US health care system. Our findings suggest that health care discrimination toward Asian American women is common, with approximately one in three reporting recent discriminatory experiences with providers. The current study is also one of the first to integrate an intersectional framework into conceptualizations of health care discrimination toward Asian American women and found that Asian American women face various forms of health care discrimination related to their race/ethnicity, gender, socioeconomic status, age, culture, language proficiency, sexual orientation, and religious affiliation. Our findings also highlight significant associations between discrimination in health care and poorer health and functioning outcomes in Asian American women, even after controlling for demographic factors. Generally, Asian American women who experienced discrimination by a provider during their most recent medical appointment were two to four times more likely to have a chronic physical condition, chronic depression, or physical or mental health impairments. As previous research suggests, unfair treatment by providers poses a significant barrier to receiving adequate care [26], which can exacerbate health issues in Asian American women [27]. Results from this study highlight the need for further

Type of Discrimi- nation by Provider	Health and Functioning Outcomes									
	Chronic Physical Condition					Physical Health Impairment				
	В	SE	OR	95% CI _{OR}	р	В	SE	OR	95% CI _{OR}	р
Insurance	0.84	.23	2.31	1.47-3.64	<.001	1.01	.19	2.76	1.89-4.03	<.001
Gender	1.11	.27	3.04	1.78-5.20	<.001	0.83	.22	2.28	1.50-3.48	<.001
Age	1.08	.27	2.94	1.74-4.98	<.001	0.89	.21	2.44	1.61-3.70	<.001
Race	0.67	.27	1.96	1.15-3.34	.013	0.88	.22	2.40	1.55-3.72	<.001
Language	0.85	.28	2.33	1.36-4.00	.002	0.89	.22	2.43	1.57-3.75	<.001
Culture	0.76	.30	2.14	1.19-3.87	.011	0.82	.24	2.27	1.42-3.63	.001
Religion	0.95	.31	2.59	1.41-4.75	.002	1.22	.25	3.40	2.10-5.50	<.001
Sexual Orientation	0.86	.31	2.37	1.29-4.35	.005	0.82	.25	2.26	1.40-3.66	.001
	Chronic Depression				Mental Health Impairment					
	В	SE	OR	95% CI _{OR}	р	В	SE	OR	95% CI _{OR}	р
Insurance	0.39	.29	1.48	0.84-2.60	.178	1.25	.21	3.49	2.33-5.25	<.001
Gender	0.91	.31	2.48	1.35-4.57	.004	1.32	.23	3.74	2.40-5.82	<.001
Age	1.06	.31	2.89	1.59-5.27	.001	1.03	.23	2.80	1.80-4.38	<.001
Race	0.70	.32	2.02	1.09-3.76	.026	1.27	.24	3.56	2.25-5.64	<.001
Language	0.71	.32	2.04	1.09-3.83	.026	1.39	.23	4.03	2.56-6.35	<.001
Culture	0.66	.34	1.94	0.99–3.78	.052	1.40	.25	4.05	2.47-6.62	<.001
Religion	1.08	.33	2.93	1.52-5.63	.001	1.56	.26	4.73	2.86-7.85	<.001
Sexual Orientation	1.16	.34	3.18	1.65-6.14	.001	1.57	.26	4.80	2.90-7.93	<.001

Models controlled for education, income, age, sexual orientation, and employment status

Table 3Associations betweenRecent Discrimination byHealth Care Provider andHealth

attention to intersecting forms of discrimination toward Asian American women within the health care system.

Implications for Practice and/or Policy

At the interpersonal level, considering that the health care experiences of Asian Americans are likely to improve when providers respect and learn about their patients' racial and cultural norms [14, 28], the current study provides more evidence that provider trainings specific to Asian American women are needed to better serve this population. This may include equipping providers with information regarding common forms of microaggressions toward Asian American women [11] and practical steps to avoid these harmful behaviors. Providers may also benefit from trainings that work to actively challenge implicit biases, such as assuming that Asian American women are foreign or do not understand English. Other trainings may provide more information about common forms of alternative complementary cultural practices that are more common in traditional Asian cultures and Eastern religious traditions, as well as how providers could approach these topics in culturally sensitive and affirming fashions [29].

At the institutional level, all of these recommendations could also be incorporated into the development of culturally adaptive service lines for Asian American women specifically. Service lines that are tailored to meet the unique needs of a patient population have been implemented successfully at medical clinics for specific minority groups (e.g., Hispanic or LGBT clinics [30]). Medical institutions may also benefit from having a diversity and inclusion taskforce to oversee provider trainings and conduct diversity-related initiatives that promote awareness and inclusion within care practices [30, 31]. Examples of these initiatives may include implementing a central reporting structure for Asian American female patients or practitioners to report bias incidents in health care settings [32] and having a diverse workforce to improve access and quality of care for Asian American women [33]. Inclusion of Asian American community members along the process is important to ensure meaningful and appropriate implementation of training and diversity initiatives [34]. In terms of research, scholars have highlighted the need for federal investments in Asian American focused research [34]. Such research could facilitate dissemination of important health information on Asian American women in health care settings. Federal funding can also foster research collaborations between the US and Asian nations to promote culturally informed medical practices [34]. Overall, findings from the current study should be considered when implementing policy recommendations within health care settings to improve the delivery of equitable care for Asian American women.

Limitations

Although the use of a large national sample is a considerable strength of this study, there are several limitations. First, the nature of secondary data analysis prevents the study from examining contexts beyond the available data. For example, the binary format of discrimination-related questions does not provide nuanced information regarding the degree of harm from specific discriminatory incidents. The retrospective self-report assessment procedure may allow for inaccuracy through memory gaps and/or response biases. Along these lines, the nature of a binary, self-report assessment of discrimination does not provide information in behavioral terms what physicians did that was perceived as discriminatory. Additionally, the current sample is limited to Asian American women who indicated needing health care in the last 12 months; thus, results may not translate to the general Asian American women population. A small proportion (10.9%) of the heterosexual-identified participants reported experiencing discrimination by providers based on their sexual orientation. It remains unclear how this question was interpreted by heterosexual individuals and may suggest a degree of measurement error. Finally, the cross-sectional nature of the data prevents any conclusion on the directionality of the associations. Thus, the association between health care discrimination and health in Asian American women may be interpreted both ways-discrimination in health care may lead to poorer health and functioning outcomes, or those with pre-existing health conditions/functional impairments may be more susceptible to discrimination in health care. Future research may also benefit from disaggregating data by disease type or various forms of multimorbidity.

To address these limitations, future research may benefit from adopting a mixed-methods longitudinal design using a community sample of Asian American women. Such design may produce richer data on Asian American women's experiences of health care discrimination and how these experiences may affect their health over time. Additionally, while research showed that implicit bias among physicians may perpetuate health care disparities for African and Latinx American patients [35], little is known about physician bias toward Asian American female patients. Further examination into physician bias (e.g., via Implicit Association Bias tests) may help health care providers recognize and adjust their own bias toward Asian American female patients.

Conclusion

Intersectionality has been recognized as an important framework to facilitate public health equity [36]. The current study is among the first to apply this framework to investigate various forms of discrimination toward Asian American women within the US health care system. Findings from this study underlined the prevalence of such experiences and their significant associations with Asian American women's health. In the context of COVID-19 which disproportionately affected the livelihood of women of color and perpetuated racialized discrimination toward Asian American women [37], these issues are ever more urgent and need to be addressed within the health care system to better protect the health of Asian American women.

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Declarations

Ethics Approval The Consumer Survey of Health Care Access is a twice-a-year survey conducted by the AAMC to assess access to health care services in the United States. Every iteration of the survey is reviewed by the AAMC's Institutional Review Board (IRB; Reference number EX00200). As a part of the review process, the IRB reviews the consent language provided to participants at the beginning of the survey and ensures the language is at an eighth (8th) grade reading level. Survey respondents are asked for their consent prior to receiving any survey questions; in clicking "Next," and continuing on to the survey questions, respondents agree they have read the consent statement and acknowledge understanding the risks and benefits of participating.

Conflict of Interest The authors declare no competing interests..

References

- Cheng H-L, Kim HY, Reynolds (Taewon Choi) JD, Tsong Y, Joel Wong Y. COVID-19 anti-Asian racism: A tripartite model of collective psychosocial resilience. American Psychologist. US: American Psychological Association; 2021;76:627–42.
- Jeung R, Horse A, Yellow Popovic T, Lim R. Stop Aapi Hate National Report 3/19/20 [Internet]. USA Government. 2021 p. 1. Available from: http://www.eoc.sa.gov.au/eo-you/what-discrimina tion/types-discrimination

- Wei VW. Asian women and employment discrimination: Using intersectionality theory to address Title VII claims based on combined factors of race, gender and national origin. Boston Coll Law Rev. 1996;37:43.
- Crenshaw K. Mapping the margins: Intersectionality, identity politics, and violence against women of color. Stanford Law Review. 1991;43:1241.
- Lewis JA, Grzanka PR. Applying intersectionality theory to research on perceived racism. The cost of racism for people of color: Contextualizing experiences of discrimination. Washington, DC, US: American Psychological Association; 2016. p. 31–54.
- Chun JJ, Lipsitz G, Shin Y. Intersectionality as a social movement strategy: Asian immigrant women advocates. Signs: Journal of Women in Culture and Society. The University of Chicago Press; 2013;38:917–40.
- Cho S, Crenshaw K, McCall L. Toward a field of intersectionality studies: Theory, applications, and praxis. Signs: Journal of Women in Culture and Society. 2013;38:785–810.
- Dill BT, Kohlman MH. Intersectionality: A Transformative Paradigm in Feminist Theory and Social Justice. 2012;
- Mukkamala S, Suyemoto KL. Racialized sexism/sexualized racism: A multimethod study of intersectional experiences of discrimination for Asian American women. Asian Am J Psychol. 2018;9:32–46.
- Li P. Recent developments: Hitting the ceiling: An examination of barriers to success for Asian American women. Berkeley J Gend Law Justice. 2014;29:144–66.
- Keum B, Brady J, Sharma R, Lu Y, Thai C, Kim YH. Gendered racial microaggressions scale for Asian American women: Development and initial validation. Journal of Counseling Psychology. 2018;65.
- 12. Brown C, Matthews KA, Bromberger JT, Chang Y. The relation between perceived unfair treatment and blood pressure in a racially/ethnically diverse sample of women. Am J Epidemiol. 2006;164:257–62.
- McMurtry CL, Findling MG, Casey LS, Blendon RJ, Benson JM, Sayde JM, et al. Discrimination in the United States: Experiences of Asian Americans. Health Serv Res. 2019;54:1419–30.
- Ngo-Metzger Q, Legedza ATR, Phillips RS. Asian Americans' reports of their health care experiences: Results of a national survey. J Gen Intern Med. 2004;19:111–9.
- Thorburn S, Kue J, Keon KL, Lo P. Medical mistrust and discrimination in health care: A qualitative study of Hmong women and men. J Community Health. 2012;37:822–9.
- 16. Williams DR, Yu Y, Jackson JS, Anderson NB. Racial differences in physical and mental health: Socio-economic status, stress and discrimination. J Health Psychol. 1997;2:335–51.
- Hong HC, Ferrans CE, Park C, Lee H, Quinn L, Collins EG. Effects of perceived discrimination and trust on breast cancer screening among Korean American women. Women's Health Issues. 2018;28:188–96.
- Pew Research Center. The rise of Asian Americans [Internet]. 2012. Available from: https://www.pewresearch.org/social-trends/ 2012/06/19/the-rise-of-asian-americans/
- Hahm HC, Ozonoff A, Gaumond J, Sue S. Perceived discrimination and health outcomes. A gender comparison among Asian-Americans nationwide. Women's Health Issues. Jacobs Institute of Women's Health; 2010;20:350–8.
- Iyer DS, Haslam N. Body image and eating disturbance among south Asian-American women: The role of racial teasing. Int J Eat Disord. 2003;34:142–7.
- Reddy SD, Crowther JH. Teasing, acculturation, and cultural conflict: Psychosocial correlates of body image and eating attitudes among South Asian women. Cultural Diversity and Ethnic Minority Psychology. 2007;

- Clough J, Lee S, Chae DH. Barriers to health care among Asian immigrants in the United States: A traditional review. Journal of Health Care for the Poor and Underserved. Johns Hopkins University Press; 2013;24:384–403.
- Misra R, Hunte H. Perceived discrimination and health outcomes among Asian Indians in the United States. BMC Health Serv Res. 2016;16:567.
- 24. American Association of Medical Colleges. Data highlights: Consumer survey of health care access [Internet]. Available from: https://www.aamc.org/media/41576/download
- 25. Kang H. The prevention and handling of the missing data. Korean J Anesthesiol. 2013;64:402–6.
- Call KT, McAlpine DD, Johnson PJ, Beebe TJ, McRae JA, Song Y. Barriers to care among American Indians in public health care programs. Medical Care Lippincott Williams & Wilkins. 2006;44:595–600.
- 27. Appel HB, Huang B, Ai AL, Lin CJ. Physical, behavioral, and mental health issues in Asian American women: Results from the National Latino Asian American study. Journal of Women's Health. 2011;20:1703–11.
- La Roche MJ, Maxie A. Ten considerations in addressing cultural differences in psychotherapy. Professional Psychology: Research and Practice. US: American Psychological Association; 2003;34:180–6.
- 29. Koenig CJ, Dutta MJ, Kandula N, Palaniappan L. "All of those things we don't eat": A culture-centered approach to dietary health meanings for Asian Indians living in the United States. Health Communication Routledge. 2012;27:818–28.
- 30. Mihaljevic T. Breaking bias: Diversity and inclusion in healthcare cannot be left to chance [Internet]. Modern Healthcare. 2019 [cited 2021 Sep 20]. Available from: https://www.modernheal thcare.com/opinion-editorial/breaking-bias-diversity-and-inclu sion-healthcare-cannot-be-left-chance

- 31. HCA Healthcare. Inclusion, compassion and respect [Internet]. Who We Are. [cited 2021 Sep 20]. Available from: https://hcahe althcare.com/about/inclusion-compassion-and-respect.dot
- 32. Warsame RM, Hayes SN. Mayo Clinic's 5-step policy for responding to bias incidents. AMA Journal of Ethics. American Medical Association; 2019;21:521–9.
- 33. Diversity Best Practices. The state of diversity & inclusion in the healthcare industry [Internet]. 2017. Available from: https:// www.diversitybestpractices.com/state-diversity-inclusion-in-healt hcare-industry
- 34. Obra J, Lin DB, Đoàn DLN, Palaniappan DL, Srinivasan DM. Achieving equity in Asian American healthcare: Critical issues and solutions. Journal of Asian Health [Internet]. 2021 [cited 2021 Oct 21];1. Available from: https://journalofasianhealth.org/index. php/jasianh/article/view/3
- FitzGerald C, Hurst S. Implicit bias in healthcare professionals: a systematic review. BMC Med Ethics. 2017;18:19.
- Bowleg L. Evolving intersectionality within public health: From analysis to action. Am J Public Health. 2021;111:88–90.
- 37. Bleiweis R. The economic status of Asian American and Pacific Islander women. Center for American Progress [Internet]. 2021 [cited 2021 Aug 16]; Available from: https://www.americanpr ogress.org/issues/women/reports/2021/03/04/496703/economicstatus-asian-american-pacific-islander-women/

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