

Ethnoracial Disparities in Sexual Assault Among Asian Americans and Native Hawaiians/Other Pacific Islanders

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Context: Ethnoracial differences may exist in exposure to trauma and posttraumatic outcomes. However, Asian Americans and Native Hawaiians/other Pacific Islanders (NHOPIs) are vastly underrepresented in research pertaining to trauma and health status sequelae.

Objective: To determine whether there are ethnoracial disparities in sexual trauma exposure and its sequelae for health and functioning among Asian Americans and NHOPIs.

Method: We examined data on sexual assault exposure from the 2006–2007 Hawaii Behavioral Risk Factor Surveillance System (H-BRFSS), which yielded a cross-sectional, adult, community-based probability sample (N = 12,573). Data were collected via computer-assisted random-digit landline telephone survey. Survey response rate was found to be about 48% in 2006 and 52% in 2007. The main outcome measures were demographic information, the sexual violence module of the H-BRFSS regarding unwanted sexual experiences, and questions about health lifestyles, chronic diseases and disability, and health status and quality of life.

Results: Participants (N = 12,573) were 44.1% white, 15.0% NHOPI, and 40.9% Asian American. The NHOPIs had a higher 12-month period prevalence (2.24 per 100; 95% CI, 1.32–3.78) for any unwanted sexual experience but had a lower prevalence estimate and odds ratio for any lifetime unwanted sexual experience (prevalence: 9.38 per 100 [95% CI, 7.59–11.55]; odds ratio: 0.61 [95% CI, 0.47–0.81]) relative to whites, after adjusting for age, gender, income, and education level. Asian Americans had lower prevalence estimates for 12-month period prevalence (0.78 per 100; 95% CI, 0.44–1.39) and lower lifetime prevalence estimates and odds ratios (prevalence: 3.91 per 100 [95% CI, 3.23–4.72]; odds ratio: 0.27 [95% CI, 0.21–0.34]). The 12-month and lifetime prevalence estimates for any unwanted sexual experiences for whites were 0.71 per 100 (95% CI, 0.45–1.12) and 12.01 per 100 (95% CI, 10.96–13.14), respectively. Sexual assault experiences were highly associated with adverse health status sequelae (eg, disability, poor general health), but there were no significant ethnoracial disparities on self-reported health outcomes among those with a lifetime history of unwanted sexual experiences.

Conclusions: Data revealed significant ethnoracial differences between whites, Asian Americans, and NHOPIs on unwanted sexual experiences, with relative risk differing by time period. This pattern of disparity could represent early stages of a new trend in local assaultive behaviors toward NHOPIs and merits attention. Across all ethnoracial groups, a lifetime history of any unwanted sexual experience is associated with a wide range of adverse health status sequelae.

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Data on the mental and physical health of ethnoracial minorities in the United States are lacking in the published literature across disciplines.¹ Few studies have examined potential ethnoracial disparities in sequelae for health and functioning after exposure to psychological trauma, and most national studies have only very small subsamples of certain minority groups² or collapse different minority groups together in a way that may obscure disparities between groups.³ This fact is of concern because interpersonal violence has dramatic adverse effects on mental and physical health and is a major risk factor for a range of medical comorbidities.^{4–7} Lower socioeconomic status is a risk factor for assaultive violence⁴; in turn, ethnic minorities are disproportionately of lower socioeconomic status, thus placing some members of ethnic minority groups at higher risk for exposure to violence.

Because of wide variation in the percentage of regional representation in the US population, some ethnoracial minorities, such as Asian Americans and Pacific Islanders, typically appear in insufficient numbers in nationally representative epidemiologic samples to permit meaningful conclusions. Additionally, few studies have been designed to examine trauma in Asian Americans, Native Hawaiians, and other Pacific Islanders. A recent national study³ that combined these 3 groups together for comparison against “non-Asians” found that “Asians” had a lower rate of violent victimization but were more likely to be violently victimized by a stranger. This same study found that, among “Asians,” male gender and youth were associated with higher rates of violent victimization. However, in this study, all Asian Americans, Native Hawaiians, and other Pacific Islanders were combined into 1 group (labeled as “Asians”), so intergroup comparisons were not made. Findings from the National Violence Against Women Survey⁸ found that Asian Americans and Pacific Islanders tend to report lower rates of interpersonal violence than do women and men from other minority backgrounds. However, disparities among minority groups diminish when other sociodemographic and relationship variables are accounted for.⁸

The State of Hawaii offers a unique opportunity to study potential ethnoracial disparities in interpersonal violence and its sequelae for health and functioning because it has relatively high percentages of Asian Americans (39.9%),

Native Hawaiians and other Pacific Islanders (8.7%), and people of 2 or more races (21.5%).⁹ Recent epidemiologic data have shown high rates of interpersonal violence among youth and adolescents in Hawaii^{10,11} along with high rates of psychiatric disorders among adolescents, especially among Native Hawaiians,¹² although whites are more likely to report violence victimization than most other ethnoracial groups.¹³

The lack of valid estimates of trauma exposure and sequelae among ethnoracial minority groups leads to misinformed policy decisions that limit the ability to adequately fund, plan, and monitor necessary services, which has significant public health consequences. In this study, we examined the prevalence of unwanted sexual experiences from a large community-based probability sample of adults in Hawaii in order to address the question of whether there are ethnoracial disparities among Asian Americans and Native Hawaiians/other Pacific Islanders, to examine the impact of controlling for relevant demographic covariates (gender, age, education, income), and to examine whether ethnoracial differences exist in self-reported posttraumatic health complaints and conditions, such as chronic disease and disability, health status, and quality of life. We focused specifically on completed and attempted sexual assaults and other unwanted sexual experiences because these are prevalent and highly associated with adverse health status sequelae.

METHOD

Sample

Data were abstracted from a large cross-sectional survey conducted through the Hawaii Behavioral Risk Factor Surveillance System (H-BRFSS),⁹ which is an ongoing landline-based random telephone survey that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. The H-BRFSS is funded by the Centers for Disease Control and Prevention (CDC). Currently, national BRFSS data^{9,14} are collected in all 50 states, the District of Columbia, Puerto Rico, the US Virgin Islands, and Guam. The sexual violence module was included in calendar years 2006 and 2007.

The survey population for the H-BRFSS is all civilian, noninstitutionalized residents aged 18 years and older in the state of Hawaii who have landline telephones. Following the CDC's guidelines and standards, the disproportionate stratified sample method is used to select random landline telephone numbers throughout the state of Hawaii. Business, government, and nonworking numbers are excluded from the sample. Interviewers are trained to ask questions exactly the same way for every call using a computer-assisted telephone interview program, which is also used to dial telephone numbers and enter data. The survey data are edited and weighted by the CDC.

Theoretically, while non-English-speaking households were eligible, they were not included in the data set as the interviewers were only English-speaking. A household is considered linguistically isolated if no person aged 14 years or over speaks English at least "very well." According to US

Census data, the 2007 American Community Survey showed that approximately 6% of households in Hawaii are linguistically isolated (http://hawaii.gov/dbedt/info/census/acs/ACS2007/acs_2007_subject/s1602.pdf). An examination of the percentage of contacts that had language problems and were therefore not able to participate in the 2006 and 2007 surveys revealed a percentage of 1.6%. The BRFSS data are directly weighted for the probability of selection of a telephone number, the number of adults in a household, and the number of telephones in a household. A final poststratification adjustment is made for nonresponse and noncoverage of households without telephones. The weights for each relevant factor are multiplied together to get a final weight (<http://www.cdc.gov/brfss/faqs.htm#17>). Further information on the BRFSS weighting procedure can be found at http://www.cdc.gov/BRFSS/technical_infodata/weighting.htm.

The Council on American Survey Research Organization (CASRO) method¹⁵ of determining the survey response rate was computed for the H-BRFSS survey and was found to be about 48% in 2006 and 52% in 2007, which is above the 40% minimum requirement of the Behavioral Surveillance Branch of the CDC.¹⁶ For both years, slightly more than 6,500 adults participated in the survey: 6,564 in 2006 and 6,603 in 2007 (total N = 13,167). The records were weighted by county, age, and sex to extrapolate to the state population. Our data show that 211 landline household phones were called and participated in both 2006 and 2007, indicating that 1.68% (211/12,573) of our sample were potential duplicates.

Participants were classified into ethnoracial groups on the basis of their self-report responses to 2 questions. The first question asked respondents to identify their race with the possibility of selecting up to 6 different ethnoracial groups from a list of 23 ethnoracial groups. A follow-up question, used to classify respondents for our analyses, asked those respondents who identified more than 1 ethnoracial group to select the one that best represents their race. Results from these 2 questions were collapsed into the 3 federally defined ethnoracial groups focused on in this article. Consistent with the purpose of this study, the sample was restricted to those participants who self-identified as white, Native Hawaiian/other Pacific Islander (NHOPI), or Asian American. Respondents who did not fall into one of these 3 categories (3.9%) were excluded from the present analyses due to their relatively lower population rate. Data on race were missing for 82 respondents, resulting in a sample of 12,573 for the demographic analysis: 5,541 whites (44.1%); 1,889 NHOPIs (15.0%); and 5,143 Asian Americans (40.9%). The ethnoracial distribution of our sample is comparable to the ethnoracial distribution of the population of Hawaii.¹⁶

Measures

Hawaii Behavioral Risk Factor Surveillance System variables. All of the data described below were collected via self-report. Descriptive data for the final sample are presented in Table 1.

Demographic information. Respondents were asked about sociodemographic information including age, sex,

Table 1. Comparison of Demographic Variables Across Ethnoracial Groups

Demographic Variable	White (N=5,541), %	NHOPI (N=1,889), %	Asian American (N=5,143), %	Pearson χ^2 (df)	P Value
Gender				23.5 (2)	.001
Female	56.4	62.1	59.9		
Male	43.6	37.9	40.2		
Age, y				280.9 (4)	.001
18–44	29.0	45.1	31.7		
45–64	48.9	38.9	39.8		
65+	22.1	16.0	28.6		
Marital status				62.2 (4)	.001
Married	56.4	52.5	59.0		
Divorced/separated/ widowed	24.7	21.5	21.2		
Single	19.0	26.0	19.8		
Employment				85.2 (4)	.001
Working	61.7	63.6	59.7		
Not working/homemaker/ student/retired	33.7	30.8	38.0		
Unable to work	4.6	5.7	2.3		
Education				663.3 (6)	.001
Less than high school	3.6	8.6	6.6		
High school	21.5	46.0	27.9		
Some college	29.8	27.5	27.9		
College and above	45.1	17.9	37.6		
Income per year				266.2 (6)	.001
< \$20,000	12.6	21.6	13.2		
\$20,000–\$34,999	17.3	25.3	21.3		
\$35,000–\$49,999	35.3	36.1	37.6		
\$50,000+	34.7	17.1	27.9		

Abbreviation: NHOPI = Native Hawaiian/other Pacific Islander.

Table 2. The Sexual Violence Module Questions Included in the Hawaii Behavioral Risk Factor Surveillance System^a

1. In the past 12 months, has anyone touched sexual parts of your body after you said or showed that you didn't want them to, or without your consent (for example, being groped or fondled)?
2. In the past 12 months, has anyone exposed you to unwanted sexual situations that did not involve physical touching? Examples include things like sexual harassment, someone exposing sexual parts of their body to you, being seen by a peeping Tom, or someone making you look at sexual photos or movies?
3. Has anyone *EVER* had sex with you after you said or showed that you didn't want them to or without your consent?
4. Has this happened in the past 12 months?
5. Has anyone *EVER ATTEMPTED* to have sex with you after you said or showed that you didn't want to or without your consent, but sex did not occur?
6. Has this happened in the past 12 months?
7. Think about the time of the most recent incident involving a person who had sex with you—or—attempted to have sex with you after you said or showed that you didn't want to or without your consent. What was the person's relationship to you?
8. Was the person who did this male or female?

^aThe sexual violence module is reprinted from the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System survey.⁹

marital status, income level, education, and employment status. Response categories were set in advance by the H-BRFSS. For context regarding income, according to the 2009 Poverty Guidelines for Hawaii,¹⁷ incomes lower than \$20,000 indicate poverty for families of 3 (benchmark = \$21,060) or more.

Unwanted sexual experiences. The sexual violence module of the H-BRFSS includes 8 questions about different

types of sexual violence or unwanted sexual experiences (Table 2). The primary questions of interest for this article were about experiences of completed sexual assault (questions 3 and 4) and attempted sexual assault (questions 5 and 6). We computed 2 additional variables to reflect any type of unwanted sexual experience (attempted and/or completed sexual assault combined), 1 for lifetime and 1 for the past 12 months. The first 6 questions were in a yes/no format. A question about the relationship to the perpetrator had 19 response categories (including 2 for “do not know” and “refused to answer”). These responses were collapsed into 7 categories: current partner, former partner, relative, nonrelative/acquaintance, friend, stranger, and missing data, which included “do not know” and “refused to answer.” Questions 1 and 2 about unwanted touching and

sexual harassment (see Table 2) were for the past 12-month period only and were not included in the unwanted sexual experiences category described above.

Health lifestyles. Questions about health lifestyles were regarding cigarette smoking (ie, frequency measured in days), alcohol use (binge drinking and heavy drinking), and physical activity. A smoker was defined as someone who currently smoked cigarettes some days or every day. “Binge drinking” and “heavy drinking” were BRFSS CDC-derived variables, using cut points developed for the current survey. For adult men, a binge drinker was defined as having 5 or more drinks on 1 occasion. For adult women, a binge drinker was defined as having 4 or more drinks on 1 occasion. In contrast, the definition of a heavy drinker was based on drinks per day. For adult men, a heavy drinker was defined as having more than 2 drinks per day. For adult women, a heavy drinker was defined as having more than 1 drink per day. The question regarding physical activity asked about participation (yes/no) in activities such as running, walking, etc, in the past month.

Chronic diseases and disability. This category included 6 questions, 4 of which reflect lifetime occurrence of certain health conditions (asthma, diabetes, heart attack, and angina or coronary heart disease). The last 2 questions focused on disability and activity limitation due to mental health and physical health. The question on disability asked respondents whether they were currently limited in any activities because of physical, mental, or emotional health problems. The question on activity limitation asked, “During the past 30 days, for about how many days did poor physical health or mental health keep you from doing your usual activities,

such as self-care, work, or recreation?” Extremely limited activity was defined by 14 days or more.

Health status and quality of life. There were 3 health status questions and 1 item on general satisfaction with life. The first health status question related to general health. A 5-point Likert scale (excellent, very good, good, fair, and poor) was dichotomized with the top 3 ratings in 1 category and the bottom 2 ratings in another. The last 2 health status questions were used to generate 2 variables called “frequent mental distress” and “frequent physical distress.”^{18,19} Both distress variables were derived by using the 14-days-or-more cutoff to the following 2 questions: (1) Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good? and (2) Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good? Conceptually, a 14-day “frequent distress” cutoff was deemed meaningful because this interval corresponds to the time frame used by accepted taxonomies, such as the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition,²⁰ for establishing mental distress. Empirically, a cut point of 14 unhealthy days is considered to be a meaningful demarcation because it corresponds to the upper 10%–15% of the general population for the mental health and physical health items in the BRFSS.²¹ Finally, respondents were asked to rate their satisfaction with life on a 4-point scale as very satisfied, satisfied, dissatisfied, or very dissatisfied. Responses were dichotomized into satisfied and dissatisfied.

Analysis

Data analyses were conducted using Stata.²² A preliminary logistic regression showed that the year in which the data were collected was not significant to the model. Therefore, data from both years were pooled for all analyses. The Pearson χ^2 statistic was used to examine the 3 ethnoracial groups on age, sex, marital status, income level, education, and employment status; these variables were then used as covariates in subsequent analyses. Lifetime and 12-month period prevalence estimates were calculated to describe and compare the extent of completed sexual assault, attempted sexual assault, and any unwanted sexual experience. Separate χ^2 analyses were used to examine the respondent’s relationship to the perpetrator among those respondents with a reported history of unwanted sexual experiences.

Logistic regression was used to determine whether self-reported rates of lifetime unwanted sexual experiences differed between ethnoracial groups and, if so, whether the differences persisted once we controlled for relevant covariates, such as gender and age. Ethnoracial group was entered as the independent variable, and, in 3 separate models, lifetime completed sexual assault, lifetime attempted sexual assault, and lifetime *any* unwanted sexual experience were entered as dependent variables (referred to as the unadjusted models). Each separate model was then expanded to include the covariates (referred to as the adjusted model). Low base

rates did not permit logistic regression modeling with the 12-month data.

Logistic regression was also used to examine ethnoracial differences in (1) health life styles, (2) chronic disease and disability, and (3) health status and quality of life among those with a lifetime history of any unwanted sexual experience. For these analyses, only “lifetime any unwanted sexual experience” was examined and entered into the model as an independent variable along with race because of the low base rates in the 12-month data and to restrict the number of exploratory tests. Interaction variables between race and any unwanted sexual experience were created and entered into the models. Cigarette smoking, heavy drinking, binge drinking, exercise, asthma, diabetes, heart attack, angina or coronary heart disease, disability, activity limitation due to mental and/or physical health, general health status, frequent mental distress, frequent physical distress, and satisfaction with life were entered as separate dichotomous (yes/no) dependent variables. All of the models were expanded to adjust for covariates. Respondents with missing data were omitted from the χ^2 and logistic regression analyses.

RESULTS

Demographic Differences

Significant group differences emerged between the 3 ethnoracial groups on gender, age, education, income level, marital status, and employment, with the differences in proportions most evident among the first 4 variables (see Table 1). Compared to the other ethnoracial groups, NHOPIs were more likely to be female, young, and single and to have lower levels of education and income. Being currently employed was slightly less often reported by Asian Americans than by whites.

Ethnoracial Group Differences in Sexual Assault

Rates of self-reported completed sexual assault, attempted sexual assault, and any unwanted sexual experience varied across ethnoracial groups, but the risk for ethnoracial groups differed depending on the time period (ie, lifetime versus 12-month prevalence). According to results presented in Table 3, Asian Americans were the least likely to report being a victim of completed sexual assault, attempted sexual assault, or any unwanted sexual experience in their lifetime, while white respondents were the most likely to report such experiences. Among white respondents, the lifetime prevalence of any unwanted sexual experience was 3 times that reported among Asian Americans (12.01 per 100 compared to 3.91 per 100). The NHOPi group also reported high rates of any unwanted sexual experience: 9.38 per 100 reported being a victim of actual or attempted sexual assault in their lifetime. For all ethnoracial groups, lifetime attempted sexual assault was more common than lifetime completed sexual assault.

In contrast to their reporting for lifetime prevalence, NHOPIs were the most likely to report being a victim of completed sexual assault (0.64 per 100), attempted sexual assault (2.03 per 100), or any unwanted sexual experience

Table 3. Lifetime and Period Prevalence Per 100 of Completed Sexual Assault, Attempted Sexual Assault, and Any Unwanted Sexual Experience by Ethnoracial Group

Time Period	Ethnoracial Group											
	White			NHOPi			Asian American			Total		
	Prevalence	95% CI	N	Prevalence	95% CI	N	Prevalence	95% CI	N	Prevalence	95% CI	N
Lifetime prevalence												
Completed sexual assault	7.14	6.34-8.04	5,233	3.76	2.75-5.14	1,746	2.00	1.54-2.60	4,613	4.12	3.70-4.59	11,592
Attempted sexual assault	9.58	8.64-10.60	5,226	8.08	6.37-10.20	1,748	3.18	2.57-3.95	4,613	6.27	5.72-6.87	11,587
Any unwanted sexual experience	12.01	10.96-13.14	5,228	9.38	7.59-11.55	1,745	3.91	3.23-4.72	4,607	7.69	7.09-8.34	11,580
12-month prevalence												
Completed sexual assault	0.13	0.07-0.23	5,232	0.64	0.24-1.70	1,746	0.30	0.10-0.85	4,613	0.29	0.16-0.55	11,591
Attempted sexual assault	0.66	0.40-1.07	5,336	2.03	1.15-3.58	1,748	0.71	0.38-1.32	4,613	0.91	0.65-1.27	11,587
Any unwanted sexual experience	0.71	0.45-1.12	5,222	2.24	1.32-3.78	1,745	0.78	0.44-1.39	4,606	0.98	0.73-1.36	11,573

Abbreviation: NHOPi = Native Hawaiian/other Pacific Islander.

Table 4. Lifetime Completed Sexual Assault, Attempted Sexual Assault, and Any Unwanted Sexual Experience: Logistic Regression Odds Ratios and 95% Confidence Intervals (unadjusted and adjusted models)^a

Variable	Ethnoracial Group	
	NHOPi, OR (95% CI)	Asian American, OR (95% CI)
Completed sexual assault		
Unadjusted	0.51 (0.36-0.72) ^b	0.27 (0.20-0.36) ^b
Adjusted	0.37 (0.26-0.54) ^b	0.22 (0.16-0.31) ^b
Attempted sexual assault		
Unadjusted	0.83 (0.63-1.10)	0.31 (0.24-0.40) ^b
Adjusted	0.69 (0.51-0.93) ^c	0.29 (0.22-0.37) ^b
Any unwanted sexual experience		
Unadjusted	0.76 (0.59-0.98) ^c	0.30 (0.24-0.37) ^b
Adjusted	0.61 (0.47-0.81) ^b	0.27 (0.21-0.34) ^b

^aThe 3 separate models include completed sexual assault, attempted sexual assault, and any unwanted sexual experience as the dependent variables. Time period is "lifetime" for all unwanted sexual experiences. Ethnoracial group is the primary independent variable for all 3 models, with white race as the reference category. All 3 models were then adjusted for gender, age, income, and education level. For completed sexual assault, unadjusted model N = 11,652 and adjusted model N = 10,539. For attempted sexual assault, unadjusted model N = 11,647 and adjusted model N = 10,531. For any unwanted sexual experience, unadjusted model N = 11,639 and adjusted model N = 10,527.

^bSignificant at P < .001.

^cSignificant at P < .05.

Abbreviation: NHOPi = Native Hawaiian/other Pacific Islander.

(2.24 per 100) in the past 12 months. White respondents were the least likely to report any sexual assault across all three 12-month prevalence categories; however, their rates of attempted sexual assault and any unwanted sexual assault were similar to Asian American respondents (see Table 3).

The logistic regression results (Table 4) showed that, compared to whites, respondents in the NHOPi and Asian American groups were significantly less likely to report being sexually assaulted during their lifetime, and the differences increased after adjusting for gender, age, income, and education level. For example, compared to whites, NHOPis were 49% less likely to report being a victim of sexual assault—but were 63% less likely when several demographic differences were accounted for. For all but 1 of the models, the same trends were observed for lifetime attempted sexual assault and lifetime any unwanted sexual experience. For attempted sexual assault, the difference between NHOPis and whites became significant only after controlling for the demographic differences. For all of the logistic regression analyses, unadjusted and adjusted, Asian Americans were the least likely to report being a victim of completed and/or attempted sexual assault (see Table 4).

While a significant difference was not found between ethnoracial groups with respect to the self-reported relationship to the perpetrator among those respondents with a history of any unwanted sexual experiences, some interesting trends were observed. A nonrelative/acquaintance was the most frequently identified perpetrator among whites (31.7%) and NHOPis (24.2%). In contrast, a friend was the most frequently identified perpetrator among Asian Americans (30.5%). The NHOPi group was more likely than the other 2 groups to report the perpetrator as being a relative: 13.8% compared to 11.6% for whites and 7.2% for Asian Americans.

There were very few reports of unwanted touching and exposure during the past 12 months, but the frequencies varied by ethnoracial group. When asked about whether anyone had, in the past 12 months and without their consent, touched sexual parts of their body, NHOPIs were more likely to report this experience (1.11%) than whites (0.83%) or Asian Americans (0.51%) ($\chi^2 = 8.02, P = .018$). With respect to being exposed to unwanted sexual situations that did not include physical touching in the past 12 months, whites were slightly more likely to report that this happened compared to NHOPIs, 1.34% versus 1.16%, respectively. Asian Americans were least likely to report this experience (0.62%) ($\chi^2 = 13.94, P = .001$).

Group Differences in Health Lifestyles, Chronic Disease and Disability, and Health Status and Quality of Life

Logistic regression analyses showed that reporting a history of any unwanted sexual experience was significantly related to reporting cigarette smoking, disability, poor general health, poor mental health, poor physical health, and less satisfaction with life ($P < .05$ for all analyses). Interaction terms included in the models between race and any unwanted sexual experiences showed that the increased risk between said history and the various outcomes did not vary by race.

DISCUSSION

Prevalence data from this large community-based probability sample of adults in Hawaii revealed significant ethnoracial differences between whites, Asian Americans, and Native Hawaiians/other Pacific Islanders on lifetime self-reported exposure to completed sexual assault, attempted sexual assault, and any unwanted sexual experience and show that relative risk for ethnoracial groups numerically differed depending on the time period. This pattern of results generally held up in a subsequent set of analyses adjusting for relevant demographic variables. In fact, whites were about 3 times as likely as Asian Americans to report a lifetime sexual assault and almost twice as likely as NHOPIs to report a lifetime sexual assault.

Our findings reveal a contrast between lifetime and period prevalence in sexual assault experiences for the different groups. The NHOPI group reported far more sexual assault experiences within the past 12 months than either whites or Asian Americans, with 2 to 3 times the period prevalence in unadjusted models. However, as noted above, the NHOPIs showed a lower rate of lifetime sexual assault than whites. Thus, this pattern of disparity among NHOPIs is worrisome in that recent assault patterns are so different from lifetime prevalence patterns and, combined with recent evidence of a surge in violence among youth,^{23,24} could represent the early stages of a new trend in local assaultive experiences involving NHOPIs. This pattern merits careful attention in future waves of the CDC's Hawaii BRFSS. Specifically, efforts should be made to answer the question of whether NHOPIs are experiencing increased patterns of sexual violence in their communities.

Consistent with prior studies,⁷ results from this ethnoracially diverse sample show that a lifetime history of any unwanted sexual experience is associated with a wide range of adverse health status sequelae, specifically cigarette smoking, disability, poor general health, poor mental health, poor physical health, and less satisfaction with life. These associations did not vary by ethnoracial group, indicating that sexual assault experiences are generally harmful for anyone experiencing them, regardless of ethnoracial status.

A trend emerged when the relationship to the perpetrator was examined among those respondents with a reported history of any unwanted sexual experiences. Although a non-relative was the most frequently identified perpetrator across ethnoracial groups, results indicate that NHOPIs were more likely to identify a perpetrator as being a relative than were other ethnoracial groups. One possible explanation for this disparity is that people from this group may have larger families and thus more potential perpetrators, or they may have an expanded definition of who a "relative" is. It is common for NHOPIs to have multiple nonbiologically related "aunties" or elders, who are viewed as family. Thus, this finding may be an artifact of differing cultural norms and traditions, although it too merits closer examination in the future to determine more precisely who these identified "relative" perpetrators of sexual violence toward NHOPIs are and whether they would be considered to be "relatives" by other ethnoracial groups.

There are several other study limitations that merit comment. In addition to the usual methodological limitations of cross-sectional and self-report research, our data show that 211 landline household phones were called and participated in both 2006 and 2007, indicating that <2% of our sample were potentially duplicated. However, we cannot know if the same person was reached in these calls, and the majority of these households had more than 1 eligible resident. Second, the current study does not include people who were without a land-based telephone. While this exclusion restricts the representation of the sample, one of the strengths of the Hawaii BRFSS data compared to other states is that Hawaii has one of the lowest percentages of wireless-only households—at 8% in 2007.²⁵ Third, important information may have been lost or masked when we collapsed people of different ethnoracial backgrounds into 3 categories. Fourth, self-reports about threatening topics are subject to errors beyond mere faulty recall.²⁶ The low rate of reported sexual assault experiences among Asian Americans may be a cultural artifact in that men's violence toward women is regarded as a private, embarrassing, or shameful matter.²⁷⁻³¹ Concern about these study limitations is mitigated by the study's strengths, including a large, ethnoracially diverse, representative community-based population sample and the fact that our analyses classify Asian Americans and Native Hawaiians/other Pacific Islanders into 2 separate groups for comparison, thus reducing chances that important potential ethnoracial differences are obscured by collapsing heterogeneous groups together.

These novel findings contribute to our understanding of potential ethnoracial disparities in sexual assault experiences and their sequelae for health status among Asian Americans

and NHOPIs, who are vastly underrepresented in published research pertaining to trauma and health status sequelae. Future research is needed in these populations regarding the prevalence of other forms of traumatic events (eg, physical assault, natural disasters), psychopathological posttraumatic reactions (eg, PTSD), intergenerational residence status, and cultural differences in the meaning of specific traumatic experiences that may influence reporting, help-seeking behaviors, and treatment response. Finally, these data remind those responsible for ensuring the public health that sexual assault experiences have a wide range of adverse health status sequelae for whites, Asian Americans, and NHOPIs alike.

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