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Prevalence of health-related quality of life (HRQOL) in Asian Americans

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Prevalence of health-related quality of life (HRQOL) in Asian Americans

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Study Objectives/Background

Objectives

- To report the prevalence of Health Related Quality of Life (HRQOL) in foreign-born Asian Americans (AA) and to compare this with the general AA from 2010 BRFSS data.
- To examine the influential factors associated with HRQOL-4 including English proficiency, perceived racial discrimination, smoking, alcohol use, and socio-demographics.

Background

- Quality of life (QOL) represents individuals' subjective perception of multi-dimensional aspects of life including physical, psychological, social and spiritual aspects.
- HRQOL represents the physical and mental health domain of QOL.
- Centers for Disease Control and Prevention (CDC) has been measuring HRQOL to capture people's overall perceptions about their health; HRQOL has become an important component of health surveillance (U.S. DHHS, 2000).
- While acculturation and racial discrimination have been negatively associated to the number of chronic health conditions and well-being of AA, their influence on HRQOL has not been studied.
- Public surveillance study has typically considered Asian Americans as a single group and little is known about how HRQOL and health-related risk factors vary among foreign-born Asian Americans including Chinese-, Korean-, and Vietnamese-Americans.

Study Design

Recruitment Procedure

- Adult Asian American recruited from community-based organizations in the Baltimore Washington Metropolitan Areas.
  - 600 AA (201 Chinese, 198 Korean, 201 Vietnamese)
- Different recruitment strategy for each group
  - Chinese: Asian American Healthcare Center (AAHC), Churches, Health fair
  - Korean: AAHC, Churches, Health fair
  - Vietnamese: Shopping center, church, temples

Data Collection Procedure

- Initial survey: self-administered questionnaire in English, Chinese, Korean, or Vietnamese, with the assistance of a bilingual interviewer when necessary.
- Study period: April 2013 to June 2014
- Participants received $20

Measures

- Socio-demographics: age, gender, ethnicity, income
- Health behavior: alcohol use, cigarette smoking
- Acculturation: spoken English proficiency
- Perceived racial discrimination (Cronbach's alpha=.94): 7-item scale (0=never to 5=almost every day) based on the Everyday Discrimination Scale (Williams, 1997). The items were summed to produce a total score and were categorized into 3 groups (0=no; 1-7=low; 8+=high).
- OUTCOME: Self-reported HRQOL: 1) self-rate health (0=good, very good, excellent, 1=fair/poor); 2) mean physical unhealthy days, mental unhealthy days, and days of activity limitation (0=no; 1=1+)

Statistical Analysis

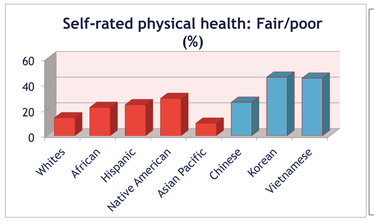
- Descriptive
- Logistic regression analysis

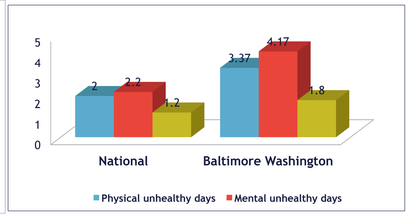
Sociodemographic characteristics (n=600)

- Age: 47.31yrs (SD: 11.82, range:18 - 91)
- Female (58.0%)
- Employed (66.0%)
- Income less than 50K (62.22%).
- Married or living with a partner (78.8%).
- Perceived discrimination (M±SD: 1.07±1.99, range: 0-7)
- Self-Identity: Very Asian(57.0%), Mostly Asian(16.6%), Bi-cultural(24.8%), Westernized(1.7%)

Comparison of HRQOL-4, 2010 BRFSS, API

HRQOL-4	Race	Baltimore-Washington Metropolitan Area	National
Fair or poor health status (% of people)	Asian	39%	9.7%
	Chinese	26.0%	
	Korean	45.5%	
	Vietnamese	44.8%	
Physical unhealthy days	Asian	3.37	2.0
Mental unhealthy days	Asian	4.17	2.2
Activity limitation days	Asian	1.83	1.2





Factors associated with HRQOL-4: Multivariate Analysis

Variables	Self-perceived health OR (95% CI)	Physical Health OR (95% CI)	Mental Health OR (95% CI)	Activity Limitation OR (95% CI)
Age	1.02* (1.00, 1.04)	1.02* (1.01, 1.04)	0.98* (0.97, 1.00)	0.99 (0.97, 1.01)
Gender				
Male	1.00	1.00	1.00	1.00
Female	2.29* (1.48, 3.55)	1.12 (0.76, 1.64)	1.54*(1.05, 2.26)	1.05 (0.67, 1.66)
Race				
Chinese	1.00	1.00	1.00	1.00
Korean	1.51 (0.90, 2.55)	0.96 (0.60, 1.54)	0.84 (0.52, 1.35)	4.26* (2.34, 7.74)
Vietnamese	1.32 (0.80, 2.19)	0.90 (0.58, 1.42)	0.83 (0.53, 1.31)	3.52*(1.92, 6.45)
Household Income				
>$70K	1.00	1.00	1.00	1.00
$50K-$70K	1.80 (0.90, 3.59)	1.20 (0.64, 2.22)	0.84 (0.45, 1.56)	0.68 (0.32, 1.45)
$30K-$49K	1.76 (0.94, 3.30)	0.90 (0.52, 1.57)	0.98 (0.56, 1.70)	1.02 (0.53, 1.95)
<$30K	2.48* (1.41, 4.37)	0.92 (0.56, 1.49)	1.25 (0.76, 2.05)	1.32 (0.74, 2.37)
Smoking				
None	1.00	1.00	1.00	1.00
Daily/occasional	1.85 (0.97, 3.54)	1.64 (0.90, 2.98)	1.84 (1.00, 3.41)	1.67 (0.87, 3.23)
Alcohol				
-<7 drinks/week	1.00	1.00	1.00	1.00
-8-14 drinks/week	0.51* (0.34, 0.96)	0.83 (0.53, 1.30)	0.63* (0.40, 0.99)	0.61 (0.35, 1.05)
>15 drinks/week	1.37 (0.49, 3.82)	0.40 (0.14, 1.14)	0.42 (0.15, 1.17)	0.95 (0.33, 2.78)
English proficiency				
poor/fair	1.00	1.00	1.00	1.00
so so	0.51*(0.34, 0.78)	1.00 (0.66, 1.53)	1.19 (0.78, 1.81)	1.08 (0.67, 1.74)
well/fluent	0.21*(0.11, 0.40)	0.89 (0.52, 1.52)	0.81 (0.48, 1.38)	0.92 (0.48, 1.76)
Perceived racial discrimination				
No	1.00	1.00	1.00	1.00
Low	0.97 (0.62, 1.52)	1.34 (0.89, 2.02)	1.81* (1.20, 2.73)	2.07* (1.24, 3.44)
High	1.07 (0.62, 1.84)	2.07* (1.26, 3.40)	2.48*(1.50, 4.09)	3.09* (1.73, 5.53)

Results

Self-perceived health:

- Strongest predictor of self-perceived health was household income: Those with household income below $30K were more likely to have poor and/or fair health compared to those with above $70K (OR=2.48, 95%CI: 1.41-4.37).
- Older and female reported poor health. Those more acculturated (e.g., spoken English proficiency) and moderate alcohol drinkers reported better health.

Physical Health:

- Strongest predictor of physical health was perceived racial discrimination: Those who had high perceived discrimination were more likely to have poor physical health (OR=2.07, 95% CI: 1.26-3.40).
- Age was associated with poor physical health (OR=1.02, 95%CI: 1.01-1.04).

Mental Health:

- Strongest predictor of mental health was perceived racial discrimination: Those who had ever perceived discrimination were more likely to have poor mental health than those with no perceived discrimination (OR 2.48, 95% CI: 1.50-4.09 for high level; OR=1.81, 95% CI: 1.20, 2.73 for low level).
- Female were more likely to have experienced poor mental health than males (OR=1.54, 95% CI: 1.05-2.26).
- Older and moderate alcohol drinkers had better mental health.

Activity Limitation:

- Ethnicity and perceived racial discrimination were associated with activity limitation. Compared to Chinese Americans, Korean- and Vietnamese-Americans reported to have activity limitation (OR=4.26, 95% CI: 2.34-7.74 for Korean; OR=3.52, 95% CI: 1.92-6.45 for Vietnamese).
- Those who ever had perceived racial discrimination were more likely to have experienced limited activity (OR=3.09, 95% CI: 1.73-5.53 for high level; OR=2.07, 95% CI: 1.24-3.44 for low level), compared to those who perceived no racial discrimination.

Discussion/Conclusion

Conclusion

- HRQOL has shown to be lower in foreign-born Asian American adults in Baltimore Washington Metropolitan Area compared to a nationally representative sample in 2010 BRFSS data.
- Race, racial discrimination and household income have shown to negatively influence the HRQOL in Asian Americans in Baltimore Washington Metropolitan Area.
- This indicates that foreign-born Asian Americans are at much higher risk of poor health than general Asian Americans.

Strengths

- Understanding the HRQOL in subgroups of foreign-born AA as well as their influential factors can be helpful towards addressing health disparities by building targeted interventions considering level of acculturation and discrimination.
- Demographic trends and the increasing proportion of AA suggest that the health status of immigrants and their descendents will contribute to health outcomes of the American population. Addressing the HRQOL in foreign-born immigrants including AA will also help in achieving the nation's health objectives.

Limitations

- Generalizability due to non-random sampling
- Self-selection bias

Recommendations

- HRQOL assessment is a particularly important public health tool for the AA and other high-risk non-English speaking populations.
- We should provide those who do not have health insurance with free or low cost health promotion programs
- We need to build a sustainable health promotion program by having a strong connection with the Asian American community.

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