

Role of Residential Segregation, Social Capital, and Political Empowerment on Asian American Health

Asian American Health Research Roundtable
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R. David Rebanal DrPH MPH
Senior Associate for Research and Evaluation
Health Equity Institute
San Francisco State University

Health Equity Institute



Mission:

“To create an intellectual environment that encourages diversity of perspectives, challenges conventional approaches, and produces innovative action-oriented research in the biomedical, social, and behavioral sciences in order to improve health, eliminate health disparities, and establish equity in health.”

Public Health & Asian Americans: “model minority” or “disease vectors”?



Quarantining Asian Americans



San Francisco Chinatown, 1900: barbed wire quarantine

SAN FRANCISCO QUARANTINE.

Policemen Keep Cordon Around Chinese District Against Plague.

SAN FRANCISCO, May 30.—The quarantine of Chinatown is being rigorously enforced, fifty policemen being detailed to maintain a cordon around the district. Ropes are stretched across the streets and the Chinese are closely hemmed in, even the secret exits through some blocks being closed against them. The Asiatics take the quarantine stoically. They had warning of what was coming, and many left the district before the arrival of the police. The proportion of those who fled was small, however, and there are thousands behind the lines.

All whites in Chinatown were allowed to pass out, but persons outside the lines are not let inside.

The police have stopped freight of all kinds from coming out, but have let the Chinese understand that supplies for themselves might pass in. The Chinese watch for newspapers with eagerness.

The Sacramento and Clay Street cable cars are permitted to pass through the quarantined district only on condition that the passengers go inside the cars before entering the lines, and no person is allowed to get on or get off the cars in Chinatown. Another condition is observed by the railway men in fumigating the cars at both ends of the line.

A careful house to house inspection was begun in Chinatown to-day.

The city Board of Health to-day held an autopsy on the body of a Chinaman found last night in a Chinese undertaking establishment. A member of the board stated that the result of the autopsy strongly indicated that the Chinese died of the bubonic plague. Dr. Shradly of New York assisted in the autopsy. Dr. Kellogg, bacteriologist of the Board of Health, was asked if the case was similar to the nine already reported. He said:

Racial Residential Segregation: Fundamental Cause of Health Disparities in U.S.



- Isolates social networks
- Limits access to health-promoting resources
- Increase exposure to crime, alcohol, and infectious agents
- Concentrates poverty
- Worse air quality

(Massey & Denton, 1993; Williams, 2001; Acevedo-Garcia, 2003; LaVeist, 2011)

Healthy Enclaves or Segregated Spaces?



- Protective: Buffers against discrimination; clustering of economic and occupational opportunities; less linguistic isolation; enhanced social capital; increased culturally-specific services (Zhou, 2005; Acevedo-Garcia, 2003; Gee & Ro, 2009)
- Healthy Effects: Protective against LBW babies (Walton, 2009)
- Increased political empowerment among segregated Blacks lowered low infant mortality (LaVeist, 1993)

Asian Americans are more residentially segregated

- U.S. Census 2010: High Asian-White segregation, increasing
- Asian poverty increased 37%
- Asian poverty most geographically concentrated: 1/3 of all Asian poor live in 3 MSAs
- 71% of poor Asians live in places where they cluster around other Asian concentrated neighborhoods, suggesting that race, regardless of class, is an important segmenting factor (National Coalition for Asian Pacific American Community Development, 2013)

Los Angeles Times | NATION

NATION NOW

Many Asian Americans are as segregated by neighborhood as Latinos

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Vietnamese men play checkers in the Little Saigon community of Westminster. People with Chinese or Vietnamese roots are as segregated as Latinos in neighborhoods nationwide, a study from Brown University has found.

BY EMILY ALPERT,
Los Angeles Times
June 25, 2013, 10:30 p.m.

People with Chinese or Vietnamese roots are as segregated as Latinos in neighborhoods nationwide, a study from Brown University has found. In Los Angeles and Orange counties, the pattern is even more extreme — and has grown more so over the last two decades.

Research Objective

- To examine the associations between racial residential segregation and psychological distress among Asian Americans.
- To examine the moderating role of social capital and political empowerment

Racial Residential Segregation = evenness, exposure, concentration, clustering, and centralization (Massey & Denton)

Social Capital = values introjection, trust, reciprocity, solidarity (Kawachi; Macinko)

Collective Political Empowerment = political activities of community groups, such as voter education/registration, and public demonstrations. (Ekman & Amna)

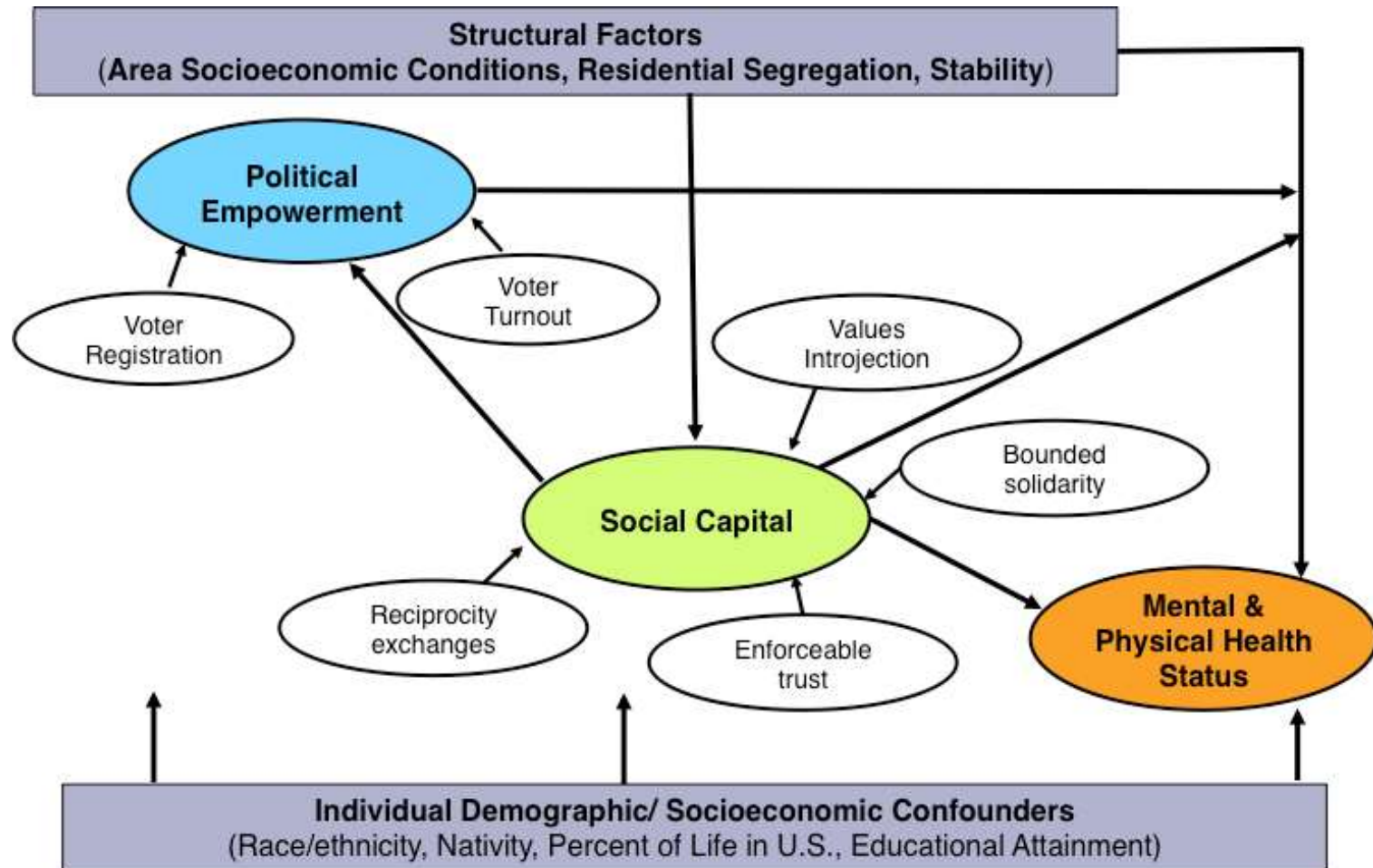
- California Health Interview Survey, 2011-2012 (n=4,527).
 - Biennial, cross-sectional, random-digit-dial, represents non-institutionalized population
 - Administered in English, Spanish, Mandarin, Cantonese, Korean, Vietnamese
- Neighborhood-level data are from the U.S. Census, 2010, Summary File 1
 - Census tract information on neighborhood poverty
- Voter registration and participation data are from the California Statewide Database at UC Berkeley.

Study Variables	Measure	Description
Dependent Variable		
Psychological Distress	Kessler 6-item Scale ($\alpha = 0.84$)	Lower scores indicate worse psychological distress.
Independent Variable		
Racial Residential Segregation	Dissimilarity Index (at the MSA level)	Range from 0 to 1. Higher scores indicates higher racial residential segregation.
Main Moderators		
Social Capital	4-item scale ($\alpha = 0.64$)	Lower scores indicate higher levels. High=1, Medium=2, and Low=3.
Asian American Voter Registration	% Registered AA Voters/ % Eligible AA Voters	Each MSA has a values from 0 to 1. Higher values indicates higher political empowerment.
Asian American Voter Turnout	% Asian Americans Vote/ % Registered	Each MSA has a value fro 0 to 1. Higher values indicates higher Asian American voter turnout.
Covariates		
Nativity status	"Were you born in the U.S.?"	Dichotomized (1= foreign-born, 0= U.S. Born)
Percent of life living in U.S.		Continuous
Neighborhood Poverty	Percentage of population in poverty in census tract	Continuous
Education Attainment	Highest educational level completed	Dichotomous, 1 = less than HS; 0= HS graduate/equivalent or more

Analytic Strategy

- Multilevel and multivariate regression
 - Racial residential segregation on psychological distress, controlling for
 - level-1 (social capital, nativity, percent of life living in U.S., and educational attainment)
 - level-2 (neighborhood poverty, Asian American voter registration and voter participation at the MSA level) variables
- Stata 12.0
 - Variance component estimation option for standard errors

Analytic Framework



Descriptive Analysis

Table 1. Selected Characteristics of Respondents (CHIS, 2011-2012)

	All Asian		Chinese		Filipino		Vietnamese		Korean		Other Asian	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Total	4527	(100.0)	1197	(26.4)	601	(13.3)	929	(20.5)	736	(16.3)	1196	(26.4)
Age, mean (SE)	51.63	(0.3)	50.5	(0.5)	47.64	(0.7)	53.28	(0.6)	58.64	(0.7)	48.12	(0.5)
18-24	462	(20.3)	137	(11.4)	91	(15.1)	74	(8.0)	49	(6.7)	144	(12.0)
25-44	1152	(25.5)	299	(25.0)	170	(28.3)	198	(21.3)	138	(18.8)	388	(32.4)
44-64	1695	(37.4)	484	(40.4)	221	(36.8)	407	(43.8)	206	(28.0)	421	(35.2)
65+	1218	(26.9)	277	(23.1)	119	(19.8)	250	(26.9)	343	(46.6)	243	(20.3)
Female	2544	(56.2)	669	(55.9)	346	(57.6)	485	(52.2)	471	(64.0)	635	(53.1)
Currently Married	2699	(59.7)	704	(58.8)	319	(53.1)	603	(64.9)	424	(57.6)	720	(60.2)
HS grad or Less	1438	(31.8)	334	(27.9)	134	(22.3)	519	(55.9)	286	(38.9)	206	(17.2)
Household Total Annual Income												
< \$26,000	1540	(34.0)	344	(28.7)	118	(19.6)	536	(57.7)	354	(48.1)	222	(18.6)
\$26000-\$79,999	1398	(30.9)	369	(30.8)	244	(40.6)	221	(23.8)	194	(26.4)	415	(34.7)
> \$80,000	1589	(35.1)	484	(40.4)	239	(39.8)	172	(18.5)	188	(25.5)	559	(46.7)
Own their home	2447	(54.1)	746	(62.3)	350	(58.2)	346	(37.2)	294	(39.9)	795	(66.5)
Citizenship & Nativity Status												
US-Born Citizen	1095	(24.2)	339	(28.3)	211	(35.1)	54	(5.8)	84	(11.4)	466	(39.0)
Naturalized Citizen	2675	(59.1)	694	(58.0)	317	(52.7)	734	(79.0)	487	(66.2)	504	(42.1)
Non-Citizen	757	(16.7)	164	(13.7)	73	(12.1)	141	(15.2)	165	(22.4)	226	(18.9)
Lived in U.S., % of life												
<60%	2715	(60.0)	650	(54.3)	254	(42.3)	740	(79.7)	566	(76.9)	550	(46.0)
>60%	1812	(40.0)	547	(45.7)	347	(57.7)	189	(20.3)	170	(23.1)	646	(54.0)
Limited English language proficiency	1524	(33.7)	371	(31.0)	27	(4.5)	609	(65.6)	451	(61.3)	85	(7.1)
Uninsured anytime in past 12 mon.	664	(20.1)	154	(16.7)	85	(17.6)	139	(20.5)	156	(39.7)	156	(16.4)
Social Capital												
Low	622	(13.7)	807	(67.4)	27	(4.5)	157	(16.9)	204	(27.7)	82	(6.9)
Medium	956	(21.1)	229	(19.1)	140	(23.3)	276	(29.7)	143	(19.4)	204	(17.1)
High	2949	(65.1)	880	(73.5)	434	(72.2)	496	(53.4)	204	(27.7)	910	(76.1)
Self-rated poor/fair health	1326	(29.3)	280	(23.4)	96	(16.0)	556	(59.8)	272	(37.0)	147	(12.3)
Psychological Distress (past 12 months)	234	(5.2)	55	(4.6)	37	(6.2)	46	(5.0)	51	(6.9)	60	(5.0)

Multilevel models

Table 2. Multilevel regression analysis of psychological distress, social capital, and political empowerment among Asian Americans, California (CHIS 2011-2012)

	Model 1	Model 2	Model 3	Model 4
	β (SE)	β (SE)	β (SE)	β (SE)
Residential segregation, Dx	-3.15 (2.4)	-6.44* (-2.33)	-6.60** (2.76)	-2.52 (3.8)
Neighborhood poverty		0.083*** (0.21)	0.77*** (0.21)	0.633*** (0.21)
Percent of life in U.S.		0.00008 (0.004)	0.001 (0.004)	0.003 (0.004)
Nativity (Born outside U.S.)		0.52** (0.28)	0.51** (0.28)	0.44 (0.27)
Educational attainment		-0.004* (0.009)	-0.004 (0.009)	-0.12 (0.12)
% Asian Americans registered voters		-1.17** (0.48)	-1.17** (0.48)	1.80 (1.9)
% Asian American voter turnout		-1.11 (1.20)	-1.03 (1.20)	3.02 (1.13)
Social capital			0.24* (0.11)	
RRSxSocial capital, Med				-2.03 (4.75)
RRSxSocial capital, Low				13.56* (7.29)
RRSx%AA Voter Turnout, Med				-4.93 (0.27)
RRSx%AAVoter Turnout, High				-7.63 (6.24)

* p<0.10, ** p<0.05, ***<0.001

Model 1: No covariates

Model 2: + Control Variables + Political Empowerment

Model 3: + Social Capital

Model 4: + [Interaction terms [Social Capital and Political Empowerment)]

Key Findings

- Higher residential segregation was found to significantly increase psychological distress among Asian Americans ($\beta = -6.44$, $p < 0.10$).
- Higher levels of neighborhood voter registration were also associated with increased distress ($\beta = -1.17$, $p < 0.05$).
- Conversely, higher levels of social capital resulted in lower distress scores (better health) ($\beta = 0.24$, $p < 0.10$).
- Being born outside the U.S (nativity status) was associated with high (better) psychological distress scores ($b = 0.52$, $SE = 0.28$, $p < 0.05$).
- When examining interaction effects, we found that in highly segregated areas, low social capital was related to lower distress scores ($\beta = 13.56$, $p < 0.10$).

Strengths and Limitations

Limitations

- Low response rate likely among undocumented immigrants
- Wide standard errors observed
- Political participation data used surname

Strengths

- Implications for intervention
- Representative survey data
- CHIS oversampled Asian populations
- CHIS provided survey in multiple languages

Implications and Next Steps

- Disaggregate Asian American ethnic subgroups
 - 2013-2014 Data
- Model other dimensions:
 - Racial residential segregation (Massey & Denton)
 - Social Capital (Kawachi; Lochner)
- Political empowerment (Wong & Lee)
 - Qualitative study

Thank you

R. David Rebanal DrPH MPH
drebanal@sfsu.edu

<http://healthequity.sfsu.edu/>

