Disparities in Self-Rated Health Among Chinese Immigrants in the U.S.

Exploring Social Identities

Lisa L. Lommel, RN, PhD, FNP, MPH
Lisa Thompson, RN, PhD, FNP
Jyu-Lin Chen, RN, PhD, FAAN
Catherine Waters, RN, PhD, FAAN
Adam Carrico, PhD
School of Nursing
University of California, San Francisco

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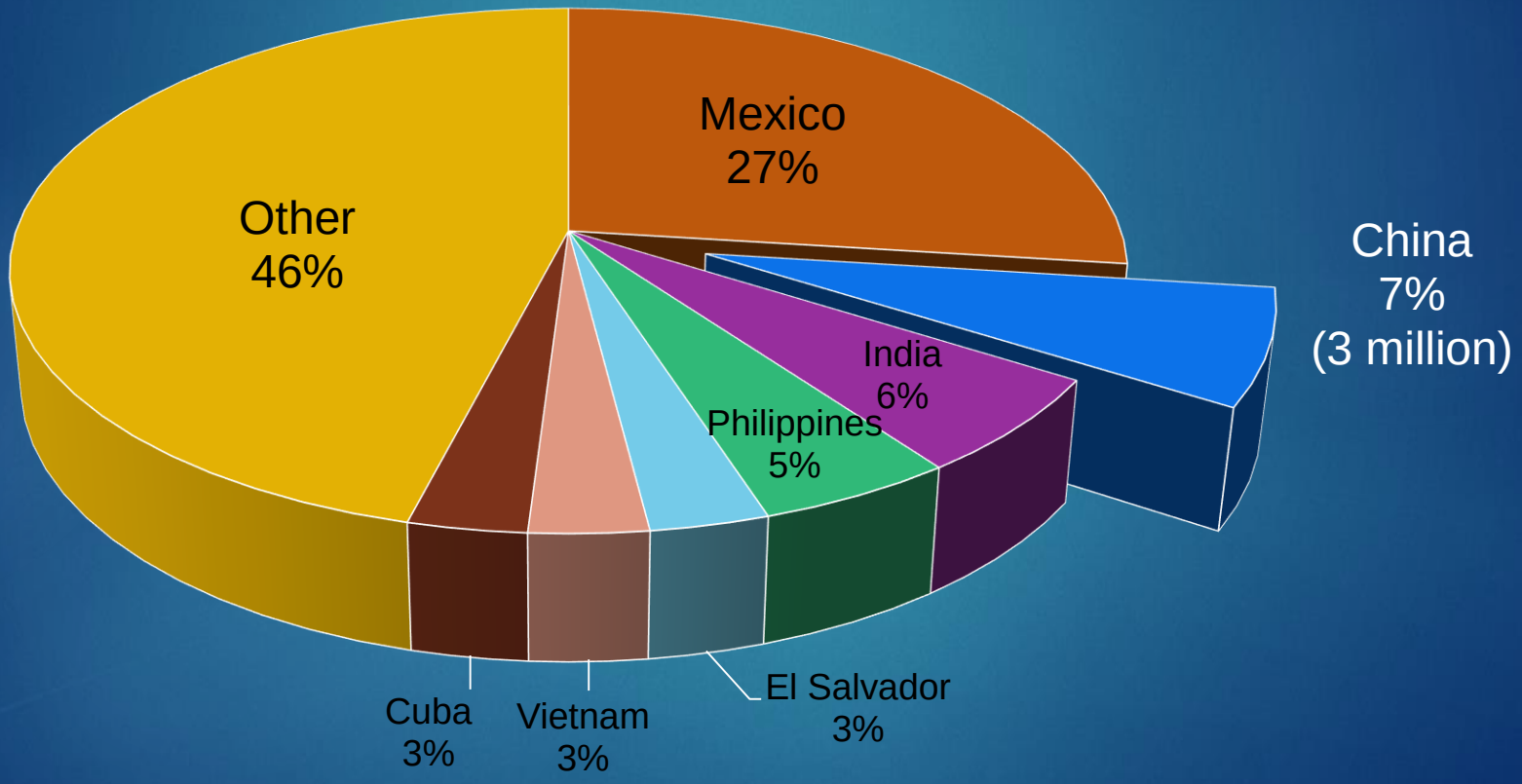
Learning Objectives

- The learner will be able to:
  - identify factors associated with poor health outcomes among U.S. Chinese immigrants.
  - explain importance of incorporating an intersectionality framework in health disparities studies.

Introduction

- Health disparities[1]
  - Unfair and avoidable differences in health status seen within and between countries.
- Social determinants of health[1]
  - Mostly responsible for health disparities.
- U.S. immigrants[1]
  - Who suffer a disparate burden of disease, injury, premature death, disability, and loss of economic opportunities.

U.S. Immigrants by Country of Origin 2015[2]



Literature Review

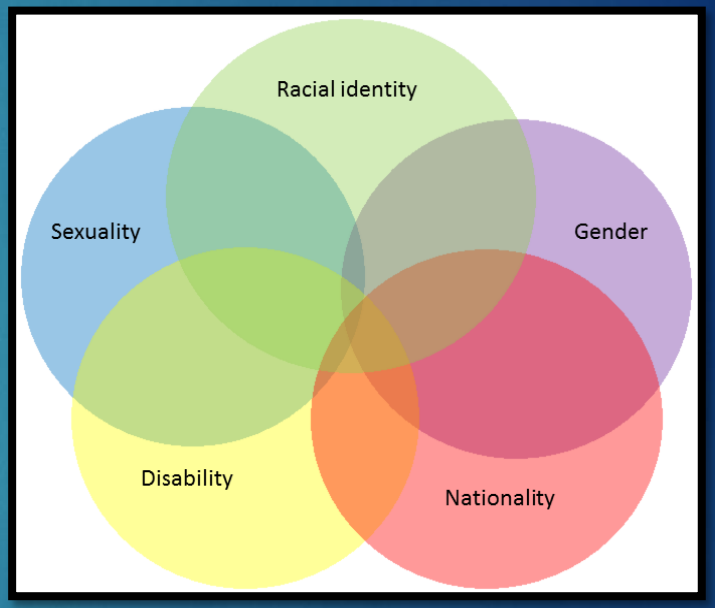
- Despite the singularly large U.S. Chinese immigrant population, most studies investigating social determinants of health aggregate Asian populations, with limited studies employing Chinese subgroup analysis.

Disparities in Asian Immigrant Health[3-5]

Tuberculosis and hepatitis B
Breast, lung, colorectal cancer, diabetes and HIV
Uncontrolled hypertension
Employment in high-risk occupations
Smoking
Suicide in older women
Depression in adolescent girls
Worse self-perceived health
More physically and mentally unhealthy days

Intersectionality Framework[12,13]

- Defined by concepts of inequality and social justice.
- Immigrants not understood by any one social identity (determinant) (i.e., gender, race or immigrant status).
- Rather, social identities interact producing distinct experiences of inequality.



Intersectionality Framework

- Inequality not gauged by summing up disadvantaged experiences.

Gender + Race + Status
(additive approach)

- Inequality gauged by how disadvantages *interact* at micro level of individual experience and *intersect* at macro level of sexism, racism, nationalism.

Gender x Race x Status
(multiplicative approach)

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What this Study Adds

- Examines social identities not previously studied in Asian immigrants.
- Focuses on (under-researched) Chinese immigrant population.
- Moves beyond examining individual social identities (additive approach).
- Investigates how identities *interact* on individual and structural level (multiplicative approach).

Research Question

How do social identities including age, gender, education, language preference, co-ethnic ties, acculturative stress, discrimination, and social position interact to produce disparities in self-rated health among Chinese immigrants?

Methods

- Design: Secondary analysis of cross-sectional data from The National Latino and Asian American Study (NLAAS)
- Data collection: May 2002 - November 2003
- Sample: Probability sample of U.S. Chinese Americans born outside of the U.S. (n=592)
- Age: 18+ years (Mean = 42.25 years, SD 1.27 years)
- Gender: 53% female, 47% male
- Education: Mean = 13.5 years (SD = .27 year)

Measures

Outcome variable

Self-rated Health

How do you rate your overall health? *Excellent, very good, good, fair, poor*

Predictor Variables (Social Identities)

- Age
- Gender
- Education (proxy for socioeconomic status)
- Language preference & Co-ethnic ties (proxy for acculturation)
- Acculturative Stress Frequency of Discrimination
- Social Position

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Method of Analysis

Additive Approach

- To establish if social identities individually make a significant contribution to explaining variability in SRH.

Multiplicative Approach

- To establish which of 15 two-way interactions interact with one another as predictors of SRH.

R-squared Values

- To establish if extent of multiplicative models' contributions exceeds additive models.

Results

Table 1: Main Effects and Additive Regression Models

Social Identities	Main Effect Model *b*	Additive Model *b*
Gender (male)	.27** (.0577, .4726)	.27** (.0721, .4597)
Age at Interview	-.01 ** (-.0223, -.0051)	-.01 (-.0140, .0010)
Education	.07*** (.0360, .0852)	.01 (-.0194, .0403)
Language Preference	.26*** (.1615, .3561)	.16***(.0709, .2910)
Co-ethnic Ties	-.08 (-.2482, .0797)	-----
Acculturative Stress	-.24***(-.3472, -.1395)	-.14*(-.2723, -.0090)
Discrimination	.19* (.0229, .3472)	.05 (-.0814, .1815)
Social Position	.12*** (.0737, .1699)	.08**(.0296, .1327)

b = unstandardized coefficients, ( )= 95% confidence intervals, *p ≤ .05, **p ≤ .01, ***p ≤ .001

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Results

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Results

Table 3: Significant Two-way Interactions Explained Variances of Interaction and Main Effects Models

Social Identities	*b*	90% CI	R^2 *
Age by Language Proficiency	.0049	.0008, .0089	.07
Gender by Education	-.0461	-.0880, -.0048	.11
Education by Acculturative Stress	-.0313	-.0537, -.0091	.10
Education by Social Position	.0133	.0009, .0258	.09
Social Position by Discrimination	.0723	.0087, .1360	.10

* after adding interaction to main effects model

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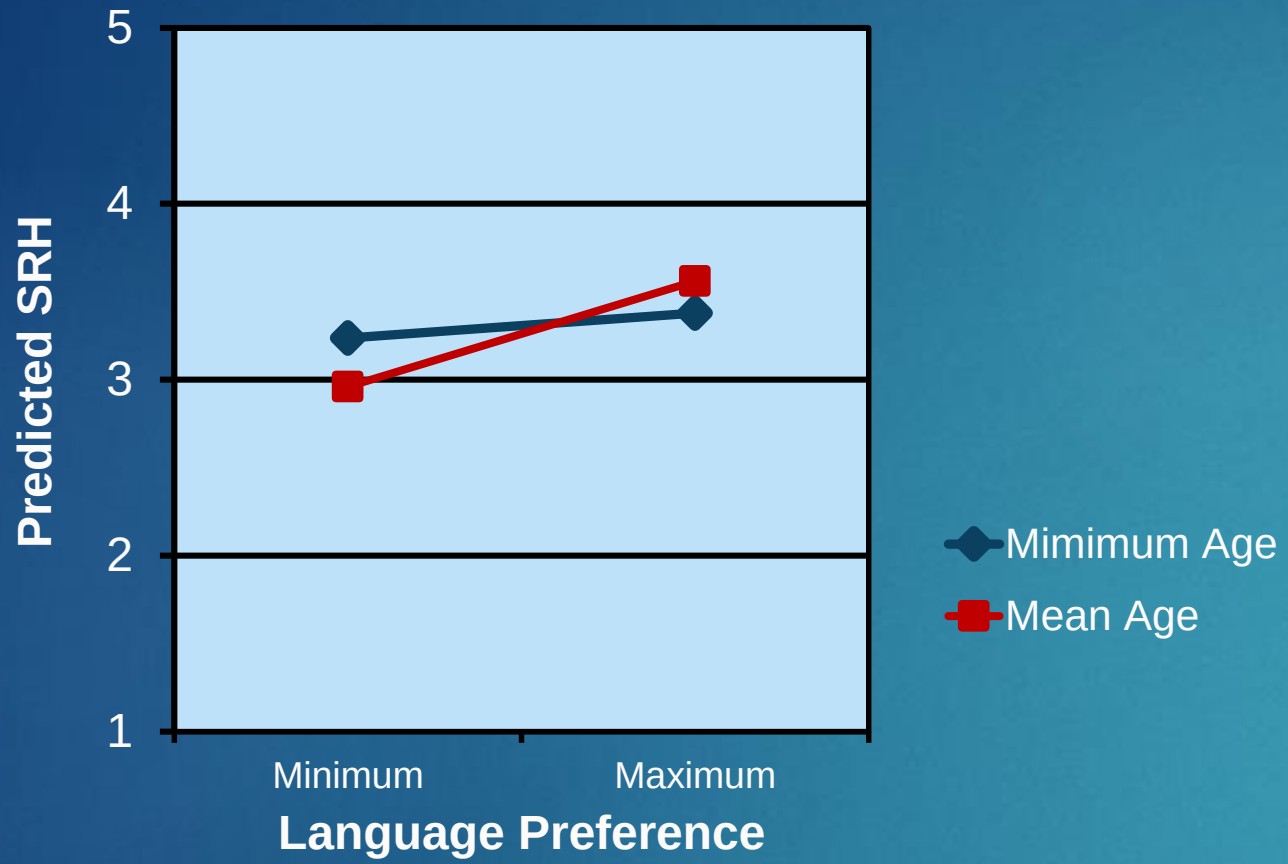
Estimated Plots for Two-way Interactions

Age by Language Preference



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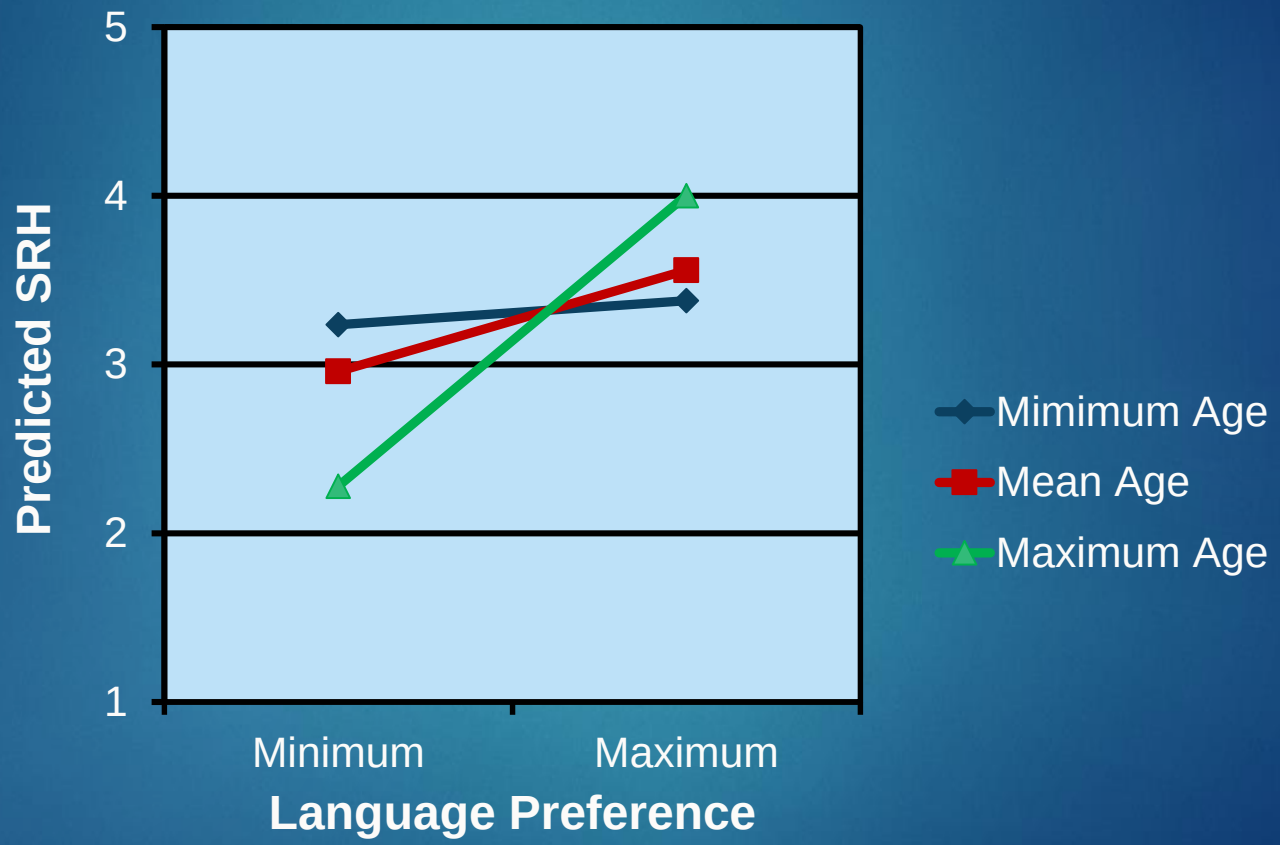
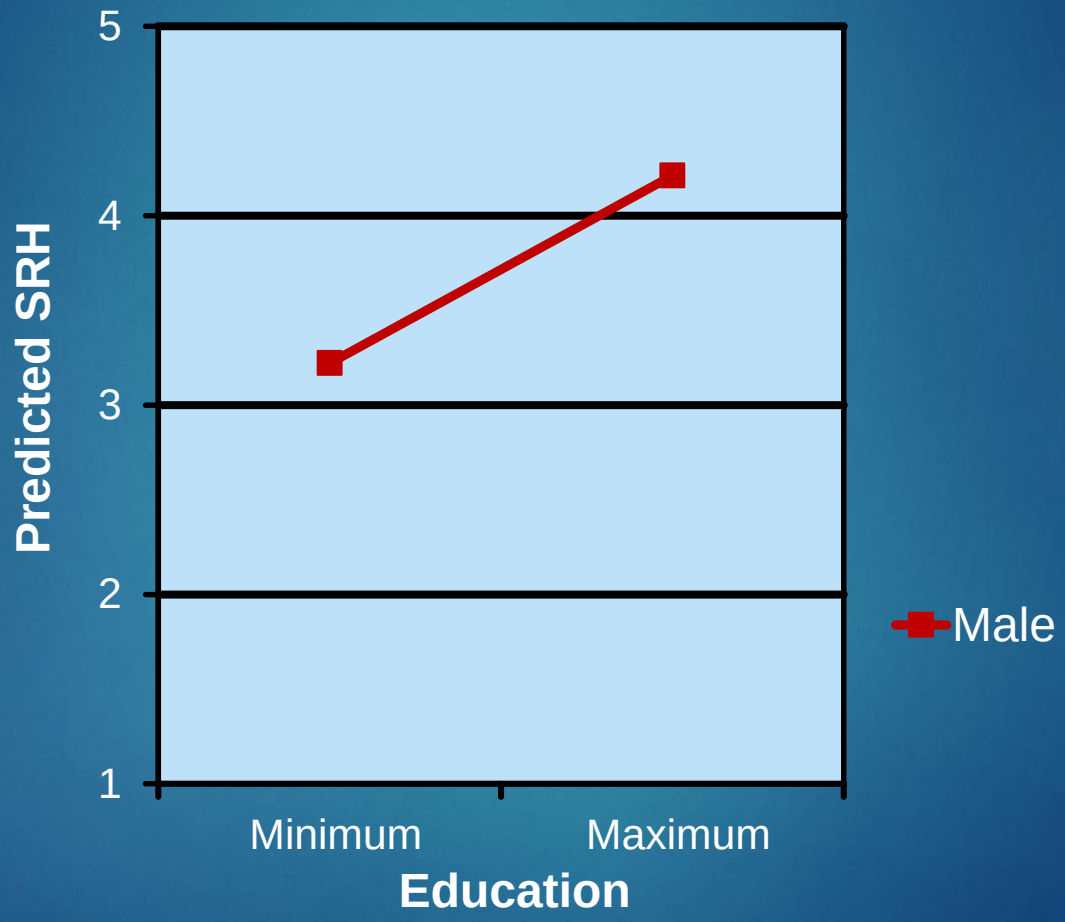


Estimated Plots for Two-way Interactions

Gender by Education



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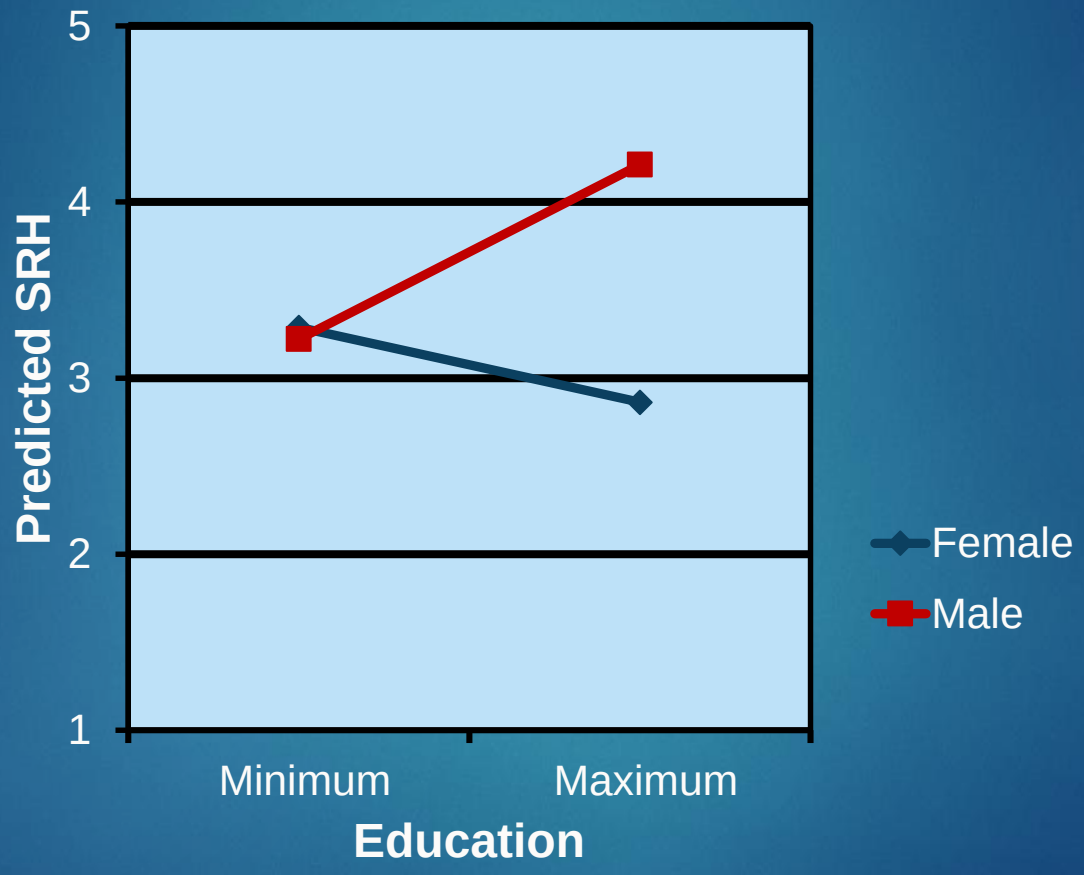
Gender by Education



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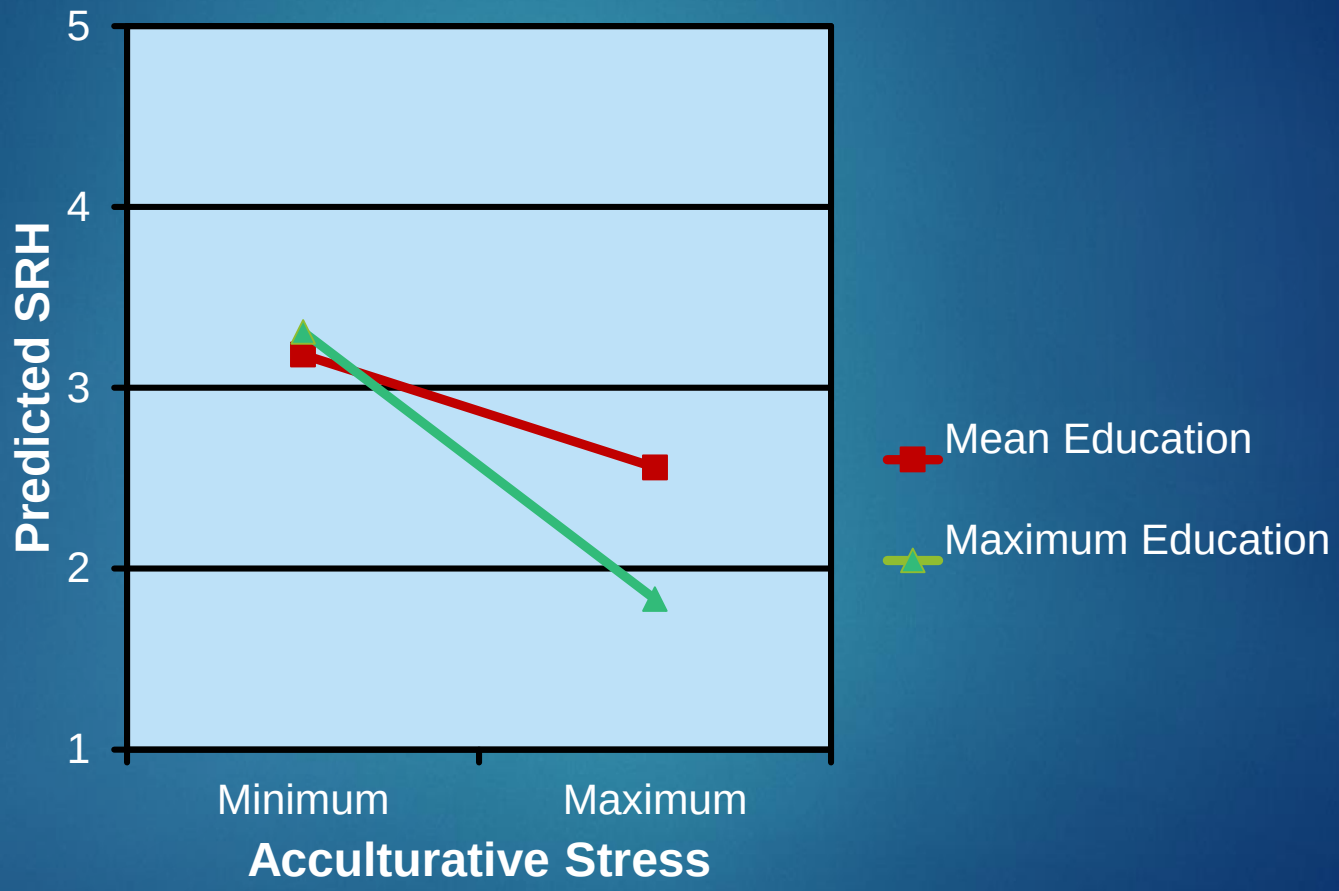
Education by Acculturative Stress



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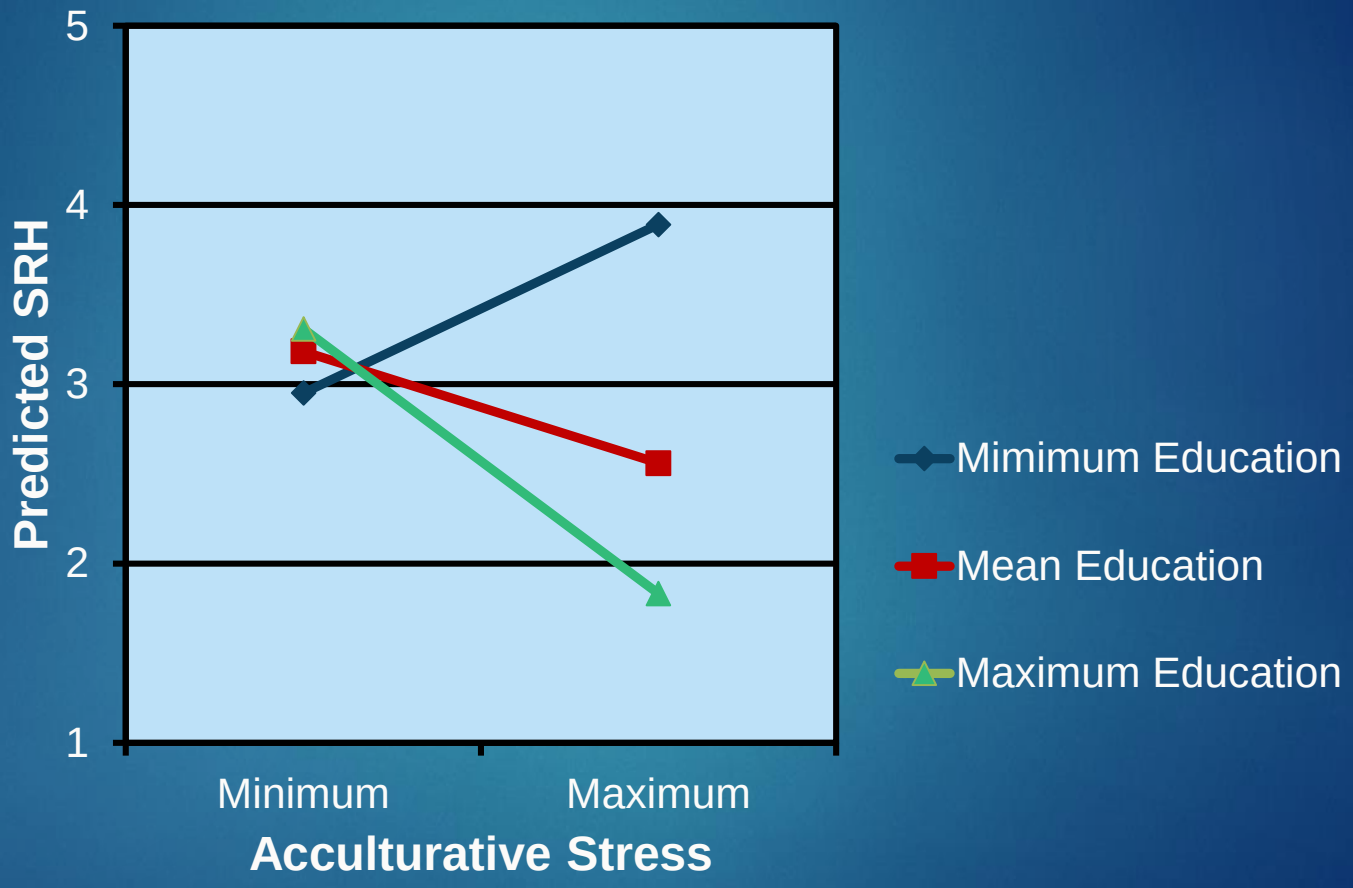
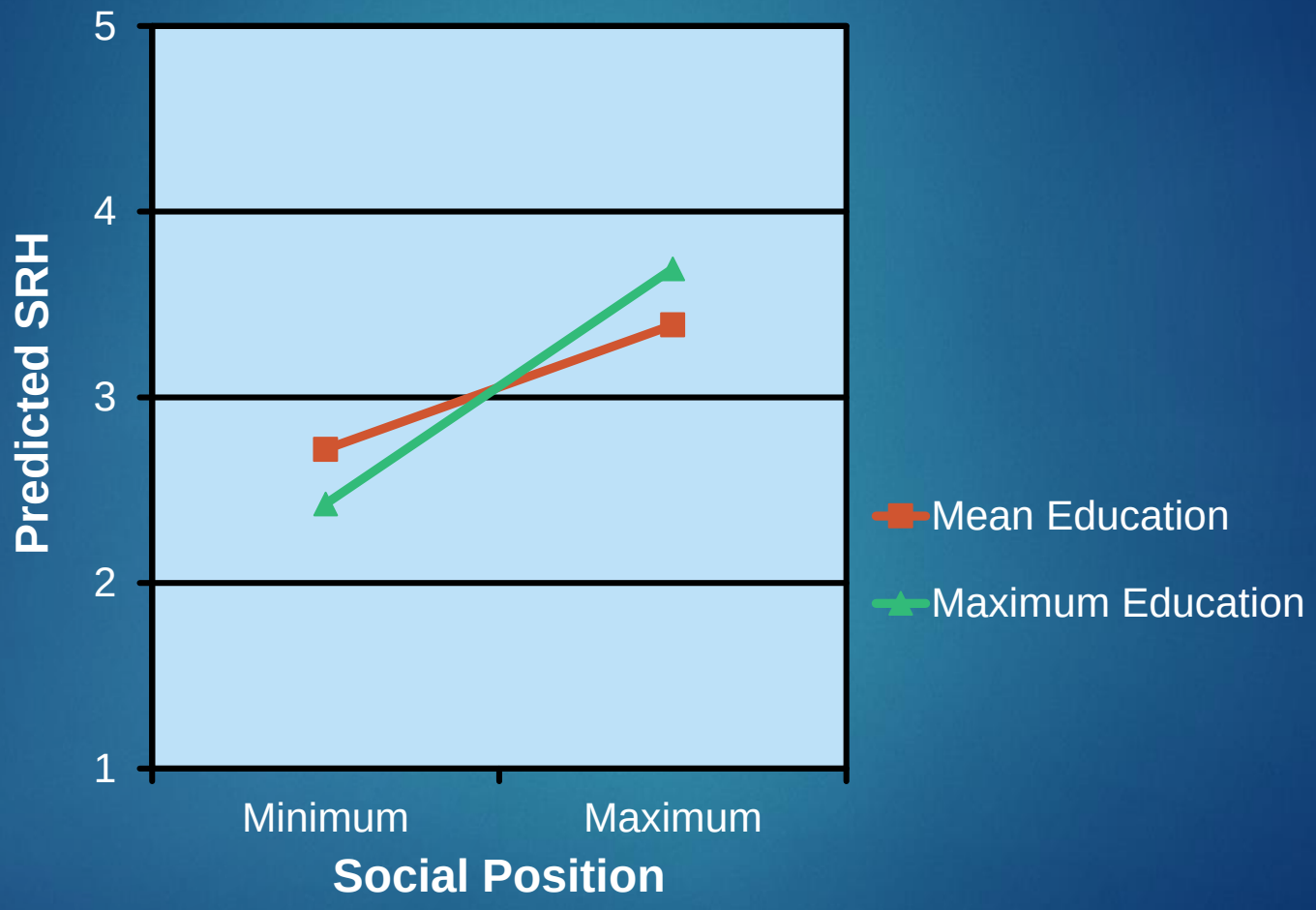


Estimated Plots for Two-way Interactions

Education by Social Position



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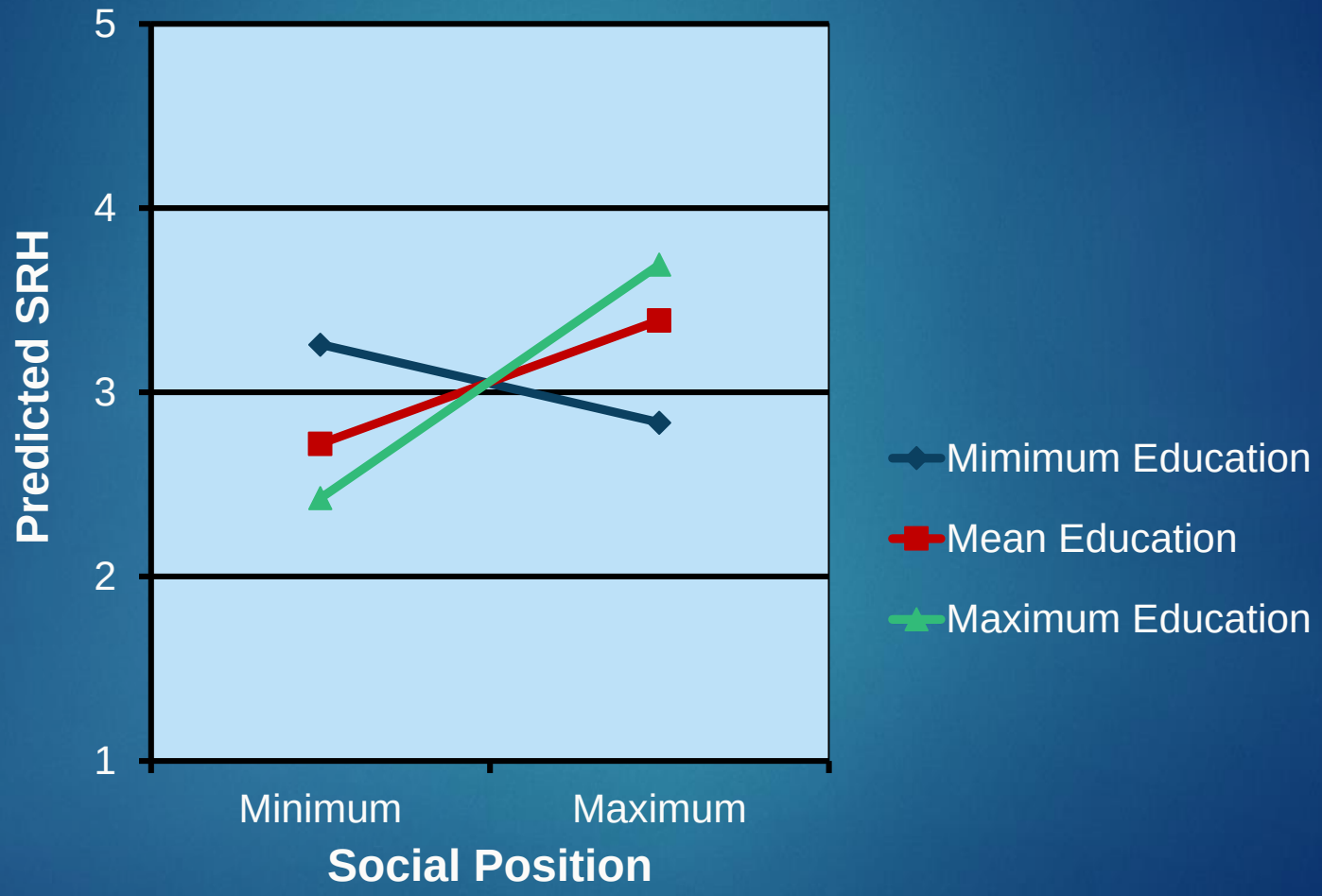
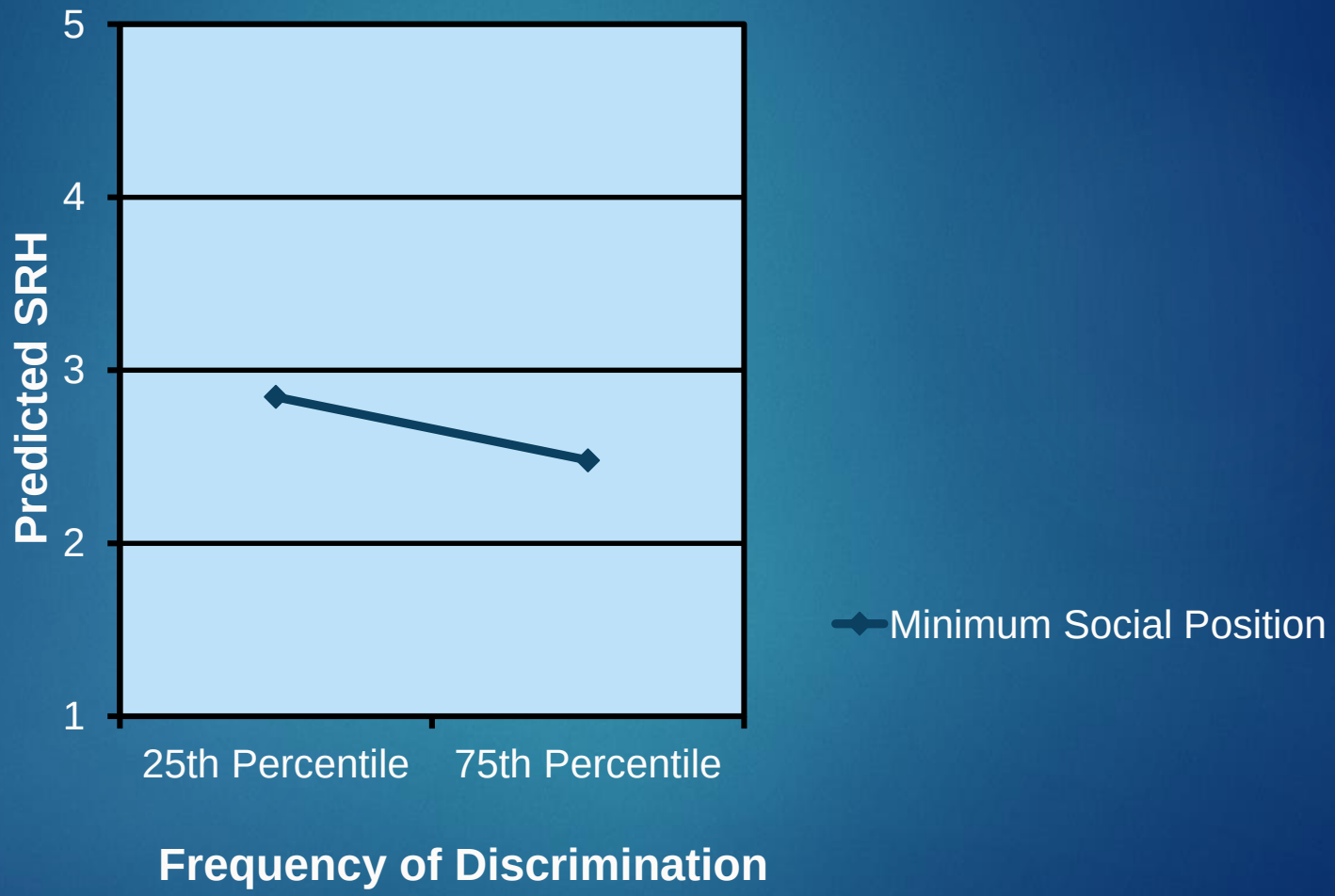


Estimated Plots for Two-way Interactions

Social Position by Discrimination



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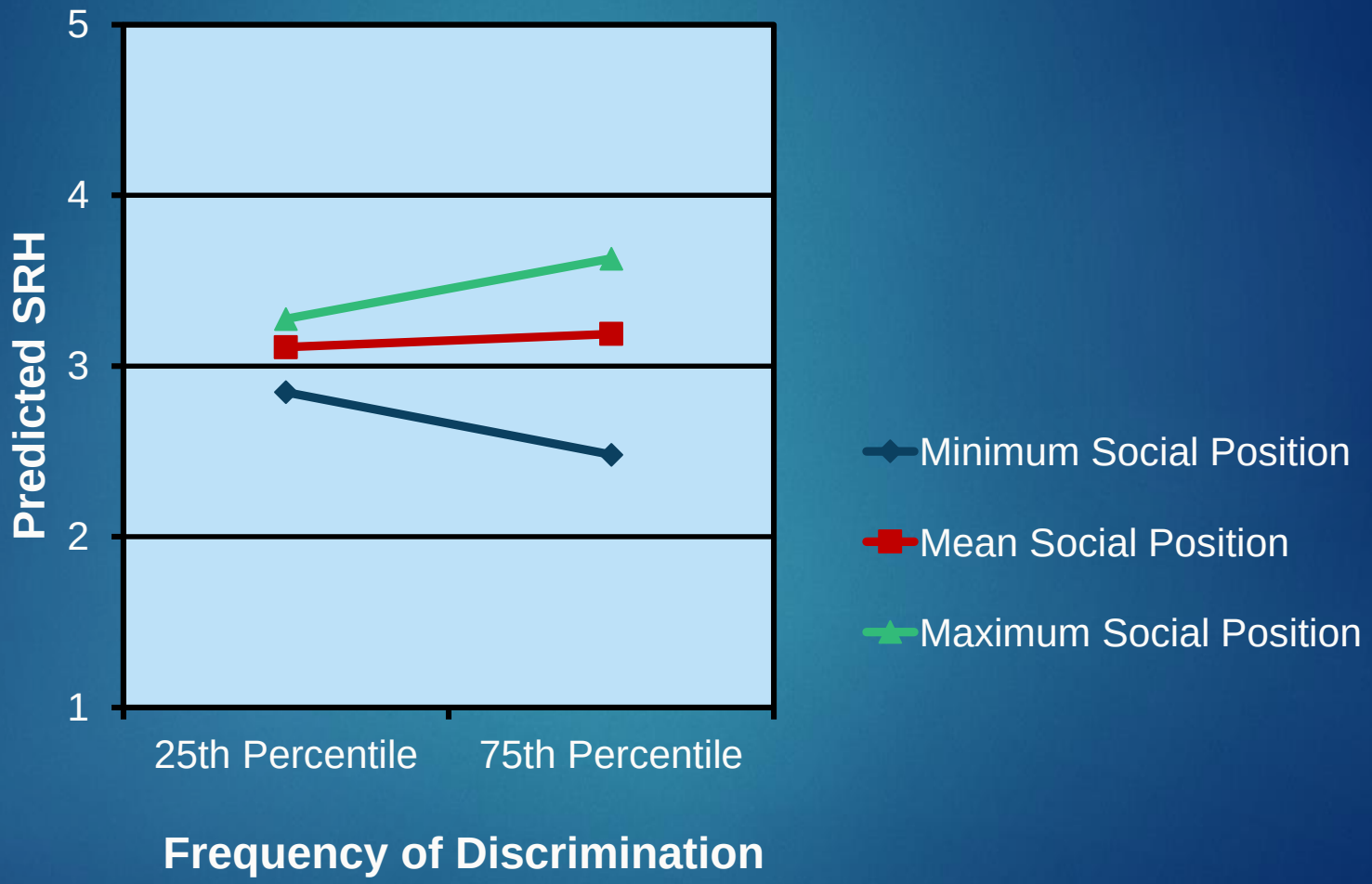

Findings

- 4 of 8 social identities significant in additive stage.
- 7 of 8 interacted significantly with at least one other in multiplicative stage.
- All 5 interactions contributed to variability in SRH beyond additive stage (7-11%).

Findings

Women with higher education
Higher acculturative stress and education
Lower social position and greater discrimination
Higher social position and lower education

Self-rated Health

English language preference at any age
Men with higher education
Higher acculturative stress and lower education
Higher social position and education

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Conclusions

- U.S. Chinese immigrants experience health disparities uniquely different from aggregate Asian populations.
- To reduce disparities
  - Increase translation and English language education.
  - Foster culturally competent health promotion.
  - Advance diversity and cultural competence of workforce.
  - Expose class systems based on social status.
  - Expand programs supporting gender equality and access to education.
  - Encourage use of community resources to improve health knowledge.
  - Emphasize importance of inter-group contact to reduce discrimination.
- Findings point to importance of including an intersectionality framework.

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Study Limitations

- Cross-sectional data limits causal inferences.
- Acculturation is multifaceted, making it difficult to measure.
- Difficult to operationalize and measure intersecting identities.
- Older dataset may not represent current national trends.

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