

Acculturation and Physical Health among New Immigrants in the United States: Evidence from the National Health Interview Survey (2002-2012)

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Introduction

Since the amendments to the Immigration and Nationality Act of 1965, the United States has experienced a significant increase in the number of immigrants and a remarkable change in their composition. The post-1965 influx has increased from countries in Latin America, the Caribbean, the former USSR, the Middle East and Asia. According to the Center for Immigration Studies (CIS), the foreign-born population in the U.S. reached almost 40 million in 2010, an increase of 9 million people since 2000.

Research examining health among different immigrant groups consistently shows that most immigrant groups have better health statuses than their US-born counterparts (Hummer et al. 1999; Singh and Siahpush 2002). Prior research shows that length of stay in the U.S. is negatively associated with immigrant health outcome and positively associated with prevalence of obesity and being overweight (Singh and Siahpush 2002; Akresh 2009). Some studies attributed the reverse association between duration and health outcomes to reasons such as the decline of cultural and social support effects, the increased rates of alcohol consumption and smoking, and lower consumption of fruit and vegetables (Hummer et al. 1999; Palloni and Arias 2004). The strong relationship between immigrants' duration of residence in the US and negative health was found as evidence that supports "negative acculturation," which argues that as immigrant acculturated into the mainstream society, they lose the protective culture buffering and family support, which leads to their health decline (Jasso, Massey, Rosen Zweig and Smith 2004).

To date, most studies on immigrant health focus heavily on examining Latino immigrants and comparing them to US-born whites (Finch and Williams 2003, Franzini and Fernandez-Esquer 2004). While some studies examine health among Asian immigrants (Frisbie, Cho, and Hummer 2001, Kandual, Lauderdale, and Baker 2007), a few number of studies compare Latino to Asian immigrants (Kimbrow, Gorman, and Schachter 2012). There are only a handful of studies, mainly community-based, that examine health among ME immigrants and compare them to US-born counterparts (Dallo and James 2000, Read 2005). Also, more recently, Read and Reynolds (2012) compare Mexican and Middle Eastern (ME) immigrants to US-born whites.

The current study is the first to compare physical health outcomes of three major immigrant groups in the United States: Asian, Latino, and ME, to those of US-born whites. The current study examines the degree to which nativity and acculturation are associated with physical health of various immigrant groups in the US over 11 years. Moreover, this study tests whether health behavior of immigrants mediates the relationship between nativity, acculturation and physical health outcomes. The research questions guiding this study are: 1) Are there any significant differences among Asian, Latino,

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and Middle Eastern immigrants compared to US-born, non-Hispanic, whites based with regard to their physical health outcomes?, 2) To what extent does nativity/ethnicity explain observed health outcomes?, 3) Does immigrants' health advantage decline with longer stay in the U.S.?, and 4) Do immigrants' health behaviors mediate the effect of nativity and acculturation on physical health outcomes?

Data and Methods

This study uses pooled data from the 2002-2012 National Health Interview Survey (NHIS). The analyses mainly draw data from the sample adult files and then link them with corresponding person, household, and family files when necessary.

Measures

The primary dependent variables include two measures of physical health: self-rated health and chronic health conditions. *Self-Rated health* is assessed with a single question, asking respondents: "Would you rate your health as excellent, very good, good, fair, or poor?" To better capture threshold effects, I dichotomized self-rated health into fair/poor and excellent/very good/good health. I also include another measure of physical health, *chronic health conditions*. Respondents to NHIS were asked to report if they were diagnosed with non-communicable diseases such as stroke, heart disease, diabetes, hypertension, arthritis, cancer and asthma. I then combined all of these variables into an array (a fourteen-item index) and dichotomized it to be 1 if individuals reported that they have at least one chronic disease and 0 otherwise. The key independent variable is *ethnicity*. All of the analysis is carried out on four groups by nativity: Middle Eastern-born (coded as 1), Latino-born (coded as 2), Asian-born (coded as 3), and non-Hispanic US-born whites (reference category). *Duration* is measured by two categorical variables, length of stay in the US and citizenship status. I recoded duration as 1) 0-4 years (coded as 0), 2) 5 years, less than 10 years (coded as 1), 3) 10 years, less than 15 years (coded as 2), and 4) 15 years or more (coded as 3). Citizenship status is coded as (0=citizen, 1= noncitizen).

Analysis

The major analytical strategy of the current study will include a set of binary logistic regression models to model the probability of reporting fair/poor health relative to excellent/very good/good. In addition, the analysis will include another set of binary logistic regression models to assess the net effects of the independent variables, on the relative likelihood of reporting suffering from any chronic health conditions.

Preliminary Results

Table 1 represents chi-square tests of independence for various groups: ME, Latino, and Asian immigrants compared to US-born whites. This table highlights key differences between ME, Latino, Asian, and US-born whites. It shows that ME and Asian immigrants are healthier than US-born white counterparts whereas Latino immigrants tend to report worse self-rated health compared to US-born whites. Asian immigrants are the least to report having fair or poor health. ME, Latino, and Asian immigrants are less likely to report having at least one chronic health condition compared to US-born whites with 34.29%, 37.2%, 38.37%, and 56.42%, respectively. The differences between the four groups are statistically significant at p-value of <.0001.

On average, both Latino and Asian immigrants are less likely to report smoking compared to US-born whites and ME with 11.93%, 11.65%, 18.07%, and 21.96%, respectively. Moreover, Asian immigrants are more likely to be of healthy weight (65.11%) followed by ME immigrants (43.00%) compared to US-born whites (36.12%). Like US-born whites, Latino immigrants tend to report being obese (29.42%), whereas Asian immigrants are the least to report being obese (10.04%). With respect to education, ME and Asian immigrants are more likely to have a college and an advanced degree relative to US-born whites and Latino immigrants, 46.11%, 46.33%, 25.54%, and 10.77%, respectively. While Asian (29.05%) and ME (25.05%) immigrants tend to report higher family income compared to US-born whites, only 8.60% of Latino immigrants report high family income compared to 22.62% US-born whites. With regard to duration, 63.08% of Asian immigrants report longer residence in the US as oppose to 56.48% ME and 57.68% Latino immigrants. Latinos are less likely to report having American citizenship (59.78%) compared to ME (36.89%) and Asian (36.88%) immigrants.

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Table 1. Characteristics of ME, Latino, Asian Immigrants, and US-born whites, NHIS 2002-2012

	US-born Whites	ME Immigrants	Latino Immigrants	Asian Immigrants
	N= 236559	N= 969	N=32925	N=7806
Self-Rated Health				
%Fair/poor	14.74	12.80*	15.99***	11.34***
% At Least one Chronic Disease	56.42	34.29***	37.20***	38.37***
Health Behaviors				
Smoking				
%smoke	21.96	18.07**	11.93***	11.65***
BMI				
%Healthy weight(18.5<BMI<25)	36.12	43.00***	31.57***	65.11***
%Over weight (25<=BMI<30)	32.95	35.50***	39.00***	24.86***
%Obese (BMI>=30)	30.93	21.50***	29.42***	10.04***
% Female	56.31	45.32***	54.39***	57.38***
Marital Status				
%Widowed/Divorced & Separated/Never	56.04	43.67***	46.35***	41.1***
Education				
% Less then HS, No diploma	13.72	13.03***	49.46***	12.09***
% HS Graduate	60.74	40.86***	39.77***	41.58***
% College Degree and Advanced degree	25.54	46.11***	10.77***	46.33***
Income (Family income)				
% \$ 1.000-\$ 34.999	47.98	51.40***	66.14***	42.84***
%% \$ 35.000-\$ 74.999	29.4	23.55***	25.26***	28.11***
%% \$ 75.000 and over	22.62	25.05***	8.60 ***	29.05***
% Health Insurance (Not Covered)	13.91	21.62***	44.4***	16.27***
% Homeownership (Rent)	34.71	50.79***	59.69***	46.24***

† $p \leq .10$ * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Indicates significant differences relative to US-born whites

Table 1 (continued)

	US-born Whites	ME Immigrants	Latino Immigrants	Asian Immigrants
	N= 236559	N= 969	N=32925	N=7806
Duration				
% in the US < 5 years	–	18.17***	11.00***	13.20***
% in the US 5-9 years	–	12.40***	15.66***	11.70***
% in the US 10-14 years	–	12.95***	15.65***	12.02***
% in the US >= 15 years	–	56.48***	57.68***	63.08***
% US Citizen (Not)	–	36.89***	59.78***	36.88***

† $p \leq .10$ * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Indicates significant differences relative to ME immigrants.