Self-Rated Health Status Among New Immigrants in the United States: Does Language Preference Matter?

Introduction

The growing share and racial-ethnic diversity of the immigrant population combined with persistent inter-group health differentials has led to an increasing interest and concern regarding immigrant health outcomes among academics and policy makers alike. While there is convincing evidence that health outcomes are a consequence of a complex interplay of the interrelationships between socioeconomic, cultural, structural factors, the specific nature of the relationship is seen to vary across racial/ethnic groups. This variation acquires additional significance in the context of the United States' contemporary immigrant population as it is culturally (includes linguistic characteristics) and socially distant from the host country. Acculturation¹ and ethnicity has therefore received considerable attention in the recent years for the study of health of immigrants in the United States² (U.S. henceforth) (Akresh 2009; Hummer et.al 1999; Garcia et.al 2010; Kobayashi, Prus and Lin 2008; Read and Reynolds 2010). Additionally in recognition of the growing diversity, investigations have moved their focus beyond Hispanics to include other minority groups such as Africans and Asians. While the emerging scholarship has advanced our understanding of the relationship between ascribed characteristics (race/ethnicity, national origin), acculturation indicators (length of stay, generation, English language ability) and levels of socioeconomic status with immigrant health outcomes, it is limited in its scope to explain fully the language related disparities. This study with the goal of examining the role of the immigrants' choice of the language of response in reporting of self -rated health (SRH henceforth) status among new U.S. immigrant population aims to fill that gap in the literature.

¹ Acculturation refers to the concept of host country's culture, tradition and is a concept distinct from assimilation (Alba and Nee 2003). Studies focusing on immigrant health use the concept of assimilation to describe immigrant health behavior (Acevedo-Garcia et.al 2010). Also, some scholars term the process of acculturation in aspects of health as structural acculturation (Lee, Sobal and Frongillo Jr 2000).

² The interest extends to other countries with a high proportions of immigrant population (McDonald and Kennedy, 2004; Wiking, Johansson and Sundquist 2004).

Historically, research on immigrant health outcomes has focused on understanding the 'immigrant health advantage'. The major reasons put forward are a combination of 'healthy migrant effect' encapsulated in the positive selection argument, 'salmon bias' or the selective outmigration of old and unhealthy, moving away from home country's healthier life style, erosion of kinship ties and social networks, discrimination and blocked social mobility. The 'immigrant health advantage' argument in the Hispanic context has been explored to explain what is called the 'Hispanic paradox', good health coexisting with low socioeconomic levels. While the factors explaining 'immigrant health advantage' have been proved to be robust when explaining the health outcomes such as birth weight profiles, all-cause mortality, infant mortality, body mass index, the research relying on SRH status as an outcome provides mixed evidence for the Hispanic group. Studies indicate that Hispanic immigrants are more likely to report poorer SRH relative to their native born counterparts and Whites (Finch et.al 2002; Shetterly et.al 1996). Additionally, a variable that has emerged to be statistically significant in mediating the relationship between SRH and the central covariates like ethnicity, nationality, socioeconomic status is language preference. Spanish speaking Hispanics reported lower health status than their English speaking counterparts (Franzini and Fernandez-Esquer 2004).

Present Study

In line with the above findings, a growing number of studies on the health of immigrant groups that utilize SRH as the outcome adjust for language preference/facility. Evidence from these studies confirms that language preference and facility is critical when data on SRH status are obtained from non-English speaking immigrant groups. For example, Hunt and Bhopal (2004) based on their work on the United Kingdom show that not taking into account the language preference of the non-English speakers can result in measurement error in the estimation of SRH status. A study on Arab immigrants in Detroit area reveals that by taking into account the respondent language preference, Arabic speaking immigrants are more likely to report poorer SRH status than their English speaking counterparts (Abdulrahim and Baker 2009). In a similar vein, DuBard and Gizlice (2008) in their research on Hispanic population find

that Spanish language preference is significantly associated with lower SRH status relative to those who prefer English.

In theoretical terms, the acculturation framework has been overwhelmingly adopted to understand intergroup variations in immigrant health. Acculturation in its basic form is conceptualized as the process by which immigrants acquire the customs, language, attitude of what comprises the mainstream in the host country. Scholars have put forward multiple feasible forms of acculturation. One form of acculturation may be following a bi-culturation model which implies adopting to the host culture and with simultaneously retaining one's own (Berry 1998). The other one is in the lines of the segmented assimilation model arguing that immigrants follow varying paths depending on their human capital and the social structure of the receiving country. In other words, it is plausible immigrants integrate economically but not culturally (Portes 1996; Portes and Rumbaut 2001). Another model that of acculturation that is being employed in health research is that of intersection. Intersectionality suggests that the interaction between the individual's location in the various stratification systems produces varying outcomes (Acevedo-Garcia 2010).

Notwithstanding the choice of the specific framework, proficiency in the dominant language of the host country comprises a pivotal measure of acculturation. In a review on acculturation and health outcomes for the U.S. Latino population, Hunt et.al (2004) found that an overwhelming majority of the studies used language as a measure of acculturation. However, a considerable portion of the research among Asians, Arabs or Blacks does not incorporate a measure of language. Additionally, to our knowledge there is minimal research that takes into account the twin measures of English language proficiency and respondent's interview language in predicting SRH status for immigrants in the U.S. The few studies that do exist are limited to one ethnic/racial group or a single geographic area (Abdulrahim and Baker 2009; DuBard and Gizlice 2008).

The present research by exploring the combined role of English language proficiency and the language preference of the respondents across all the major ethnic groups is an attempt to advance our

understanding of the inter-group differences in language related variables and acculturation patterns in relation to health. In specific terms, the research questions that we investigate are;

1) to what extent SRH status for new immigrants be predicted by socioeconomic, immigrant specific characteristics?

2) what is the role of language preference in predicting SRH status and in explaining intergroup variations in SRH status?

In examining the above questions, our study provides information on the levels of SRH status, an indicator that is being increasingly employed to measure immigrant health (Acevedo-Garcia et.al). Further, the findings relating to the role of language preference contributes to the understanding the process of acculturation for health outcomes in particular and the larger issue of immigrant assimilation. It sheds light on the methodological aspects of data collection on health related variables. The study by assessing the SRH status of the all the major immigrant groups, who by virtue of their legal permanent residence status³ comprise a potentially major demographic, economic and social force, addresses the limitation of previous research that is either group specific or location specific or both.

Data and Methods

We employ the 2003 New Immigrant Survey (NIS henceforth) dataset. The sampling frame for 2003 NIS data comprises foreign born population that were granted legal permanent residency between May and November 2003. The survey design constitutes a stratified sample. The sample size for the adult sample (age 18 or older at the time of admission to legal permanent residency) is 8,573 individuals⁴. Apart from the information on socioeconomic and demographic indicators and on immigrant specific indicators, NIS dataset contains detailed information on education, employment, health, migration history and visa transitions. Also, the survey instrument was translated into seven languages, namely Chinese,

³ Technically, a foreign born person becomes an immigrant on being granted legal permanent residency. Legal permanent residency status grants privileges almost similar to those enjoyed by a U.S. citizen with few exceptions such as voting rights. A legal foreign born resident without the legal permanent residency status is authorized to live in the U.S. on non-immigrant visas such as F (student), H (work), J (scholar).

⁴ The exact number of observations will depend on the number of respondents who have information on all the concerned variables. We employ the listwise deletion procedure to eliminate cases with incomplete information.

Korean, Polish, Russian, Spanish, Tagalog, and Vietnamese⁵ to facilitate respondents who were not fluent in English (Jasso et.al 2003). The translation of the survey instruments in non-English languages other than Spanish makes NIS a unique data set. This unique characteristic makes it possible to evaluate the role of interview language. Further, NIS is the only U.S. data set collecting detailed information on gamut of critical variables such as educational attainment, employment, visa status apart from health (Jasso et.al 2000).

The dependent variable, SRH status, was measured by the following question: 'would you say your health is excellent, very good, good, fair, or poor?' We depart from the tradition of dichotomizing SRH status as; excellent, very good and good versus fair and poor. We do so because given the distribution of the observations across the categories, a dichotomous classification would not imply maximizing the information. We therefore decide to conceptualize SRH status as a three category variable. The categories are; 1) excellent and very good; 2) good and 3) fair and poor. It may noted three category classification is in line with a recent study based on NIS dataset (Akresh and Frank 2008).

The independent variables that we use can be classified as

Demographic – age, gender, marital status, race/ethncitity, region of residence in the U.S.

Socioeconomic - education, employment, occupation, income

Immigration specific characteristics – country of origin, duration of stay, admission category, English language proficiency – speak and understanding, language preference, mother tongue.

Health related - smoking and drinking behavior, mental health well being, physical exercise regimen

The variable of central interest, language preference is measured by the respondent's choice of the language in which he/she chooses to respond. As mentioned earlier, the respondent has a choice to respond in the following languages; Chinese, Korean, Polish, Russian, Spanish, Tagalog, and Vietnamese. Also, unlike majority of the studies that measure English language proficiency by the ability to speak, we employ a more comprehensive measure by combining the ability to speak as well as understand English.

⁵ There is yet another tier of languages that were used in the interview process. However the entire instrument was not translated in those languages. Instead two set of key concepts were identified to be translated (Jasso et.al 2003).

Additionally, it may be noted that the list of explanatory variables is subject to the multicollinearity and endogenity tests before finalizing the selection. Table 1 provides the weighted summary statistics for the dependent and the select independent variables.

Given the nature of our dependent variable, we employ multinomial logistic technique. Before conducting the regression analyses, we test for bi-variate associations between the dependent variable and the independent variable of interest as well as with others that have been identified as significant by previous research such as race/ethnicity, national origin. In terms of the multivariate analyses, we run multiple specifications. The first specification would be what we call the global model. This model includes all the explanatory variables including language preference. In the subsequent specifications, we run models for native Spanish speakers comparing those who chose to respond in Spanish those who did in English. We analyze similar models for non-Spanish speakers. The lack of adequate sample size constrains us for examining for each individual language group.

Tables 2A- 2E presents some of the (weighted) bi-varaite statistics. Preliminary results as indicated by the chi-square statistic show a statistically significant relationship between SRH status and the language of the interview.

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v at tables	
Dependent Variable :Self -rated Health Status	
Excellent or Very good	62.85
Good	27.31
Fair or Poor	9.73
Total	100 (N=8, 572)
Independent Variables (Percentage)	
Demographic	
Age (in completed years)*	47.39 (130.01)
Gender	
Female	56.38
Male	43.62
Martial Status	
Married	74.04
Cohabitation/divorced/separated/widowed	10.47
Never married	15.41
Region	
Immigrant gateway states/region	72.42
Middle & South Atlantic	10.76
East & West South-North Central	7.24
Pacific/Mountain	9.58
Race/Ethnicity	
Hispanic	35.00
Native Hawaii/Alaskan/American Indian/Pacific Islander	4.01
Asian	29.34
Black	11.55
Non-Hispanic White	20.10
Socioeconomic	
Years of school completed*	12.13 (5.102)
Years of school completed square*	173.18 (126.86)
U.S. Education	
None	73.34
Less than 6 years	13.28
6 or more than 6 years	8.37
Employment Status	
Working	55.05
Looking for job	15.79
Discouraged/disabled	29.16

 Table 1. Weighted Summary Statistics of Dependent and Select Independent Variables

Table 1 continued

Table 1 (Continued)

Immigration Specific Characteristics	
Country/Region of Origin	
Latin America	26.74
Eastern Europe, Russia and Former U.S.S.R	17.53
Mexico	12.68
Asia	20.17
English language proficiency - speaking and	
understanding	10 50
Very Well and Well	46.56
Not well	31.86
Not at all	21.59
Language of the Interview	
English	45.21
Spanish	29.1
Other	25.69
Mother Tongue	
English	2.33
Spanish	35.56
Other	62.11
Health Related Characteristics	
Smoking Habits	
Ever smoked	24.57
Never smoked	75.43
Drinking Habits	
Currently drinking	38.61
Not currently drinking	61.39
Physical Activity	
Once a week	69.67
Less frequently than once a week	6.95
No activity	23.38
Depression	
Expressed Depression	13.52
No Depression	86.48

Note : The statistic for all the variables indicates percentage distribution except for the of age, years of school completed, and square of years of school completed.

* The figures in brackets indicate standard deviation.

	Table 2A. Self-rate	ed Health Status and Region of R	Residence (Weighted)		
Self-rated Health	Immigrant Gateway States/Region*	Middle and South Atlantic	East and West South North Central	Pacific/Mountain	
Excellent or Very good	61.63	70.39	68.19	59.4	
Good	27.88	22.67	24.88	29.84	
Fair or Poor	10.36	6.83	6.93	10.63	
*					
	Table 2B. Self-rate	d Health Status and Race/Ethnic	ity (Weighted)		
Self-rated Health	Hispanic	Native Hawaiian/Alaskan/	Asian	Black	Non- Hispanic
		American Indian/Pacific Island	der		White
Excellent or Very good	56.01	59.67	61.99	72.82	71.12
Good	30.59	27.72	30.36	19.56	21.46
Fair or Poor	13.4	12.61	7.53	7.28	7.43
Tabl	e 2C. Self-rated Health S	Status and English Language Pro	ficiency (Weightd)		
Self-rated Health	Very Well	Not Well	Not at All	=	
Excellent or Very good	74.49	57.04	42.41		
Good	20.84	32.76	36.2		
Fair or Poor	4.55	10.09	21.4	_	
	Table 2D. Self-rated He	alth Status and Language of Int	erview (Weighted)	=	
Self-rated Health	English	Spanish	Other	_	
Excellent or Very good	73.43	53.51	54.69		
Good	21.02	31.53	33.62		
Fair or Poor	5.37	14.97	11.56	_	
Table 2E. Sel	f-rated Health Status an	d Mother Tongue (Weighted)		_	
Self-rated Health	English	Spanish	Other		
Excellent or Very good	82.34	55.67	66.25		
Good	16.03	30.85	25.74		
Fair or Poor	1.62	13.48	7.85	_	
Note: All the above associat	ions are statistically signif	icant at p<0.05			

* Immigrant gateway states include the states/region of California, Florida, Illinois, New Jersey, New York, Texas, and New England, the places with high (relative to the national average) percentage of immigrant population.