Language of Interview and Self-rated Health in a Sample of Mothers

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ABSTRACT

Hispanics tend to be healthier than non-Hispanic whites on many indicators, yet they consistently rate their health as worse than non-Hispanic whites. This incongruent finding has been tied to Spanish-language use and/or other indicators of acculturation, questioning the validity of self-reported health as a measure of health status for some Hispanics. As of yet, however, there has been no research examining changes in self-rated health by language using longitudinal data. This paper addresses the following questions: 1.What is the relationship between language and self-rated health, and does this relationship change over time? 2.Does the effect of language on self-rated health persist after controlling for measures of acculturation and objective health? Our analyses indicate Hispanics rate their health as worse than those of other groups. Yet within Hispanics, those who were originally interviewed in Spanish are less likely to rate their health highly than those who answered in English, an effect which persists over time.

INTRODUCTION

The health of the Hispanic population in the United States is often described as paradoxical (Markides and Coreil 1986, Markides and Eschbach 2005). In spite of their relatively low socio-economic status and low utilization of health services, Hispanics tend to rate as healthy as or healthier than non-Hispanic whites on a range of health indicators, such as lower rates of low birth weight among infants born to Hispanic mothers. This salubrity is often attributed to the demographic profile of Hispanics, in that they tend to be younger and have a higher proportion of immigrants than the non-Hispanic while population (Guendelman 1998).

The data on how Hispanics subjectively rate their health do not conform to this pattern, however. When examining differences by racial/ethnic group, Hispanics rate their health as worse than non-Hispanic whites, even when controlling for physical conditions (Ren and Amick 1996, Shetterly, Baxter, Mason and Hamman 1996, also Hummer, Benjamins and Rogers 2004 for the case of Mexicans). Within the Hispanic population, researchers have found differences in self-rated health according to what language the question was asked (i.e., English versus Spanish) and by levels of acculturation. Those who answer the self-rated health question in Spanish consistently rate their health as worse than those who answer in English, and those immigrants who exhibit lower levels of acculturation are more likely to report worse health than those immigrants who are more acculturated or U.S. born co-ethnics (Angel, Buckley and Finch 2001, Wilkinson et al. 2006).

According to Angel and Thoits (1987), "the central question is whether or not the actual linguistic expression of subjective states constitutes reality" (p.486). There is reason to believe that self-rated health is less tied to physical health among those who rate their health in Spanish. When interviewed in Spanish, Mexicans and Puerto Ricans are much more likely to report their

health as fair/poor than those who answered in English, even when a physician has rated their health as excellent. Spanish-language interview is not only associated with poorer self-rated health but also higher levels of depression (as measured with CES-D). The effect of Spanish language interview on worse self-rated health persists even after controlling for physician's assessment and respondent's depression level (Angel and Guarnaccia 1989). Furthermore, more acculturated Hispanics in the San Luis Valley Health and Aging Study rated their health more similarly to non-Hispanic whites than less acculturated Hispanics (Shetterly, Baxter, Mason and Hamman 1996). Self-rated health has also proven to be a weaker predictor of subsequent mortality for less acculturated Hispanics (Finch, Hummer, Reindl and Vega 2002).

On the other hand, differences in self-rated health according to language use and acculturation level can be due to actual differences in health, not solely forces unrelated to objective health status. In the short-run (one year), recent immigrants' self-rated health improves over time, even when stratifying responses by English proficiency (language effect), having seen a physician/being hospitalized (contact with medical professional), and country of origin (reference group) (Jasso et al. 2004).

Thus, the inference is that the longer that immigrants stay in the U.S., the more they use English, and the more acculturated they become to U.S. society, the better they rate their health. Evidence for this, however, has only been demonstrated using cross-sectional data comparing groups with different levels of duration, language use and acculturation. Moreover, it is unclear whether those Hispanics who chose to be interviewed in English are more acculturated and rate their health as better as a result of subjective changes in how they view their health (e.g., decreased somatization) or objective improvements in their health over time (e.g., through more contact with a health provider, although this could operate in the opposite direction).

Additionally, this difference could be merely a reflection of the incompatibility between the English and Spanish versions of the self-rated health question, irrespective of levels of acculturation or objective health.

As of yet there has been no research examining changes in self-rated health, language of interview, and acculturation over time using longitudinal data. With this in mind, this paper addresses the following two questions:

1. What is the relationship between language and self-rated health among Hispanics, and does this relationship change over time?

2. Does the effect of language on self-rated health persist after controlling for other measures of acculturation and objective health of the respondents?

Based on the literature cited above, it can be expected that less acculturated Hispanics will rate their health as worse than not only more acculturated Hispanics, but also non-Hispanic whites and non-Hispanic blacks, but that this difference will decrease over time. Moreover, we can anticipate that those rating their health in Spanish will tend to indicate worse health than those mothers responding to the same question in English. It is unclear whether this relationship will hold once controlling for other measures of acculturation and indicators of objective health status.

DATA AND MEHTODS

We test these hypotheses through analysis of longitudinal data from the Fragile Families and Child Wellbeing Study. The Study collected data on approximately 4,700 children immediately after their birth between 1998 and 2000. Follow-up interviews with the children's mothers were conducted when the children were 1, 3 and 5 years old. In addition to collecting data on the health and development of these children, mothers also answered questions regarding

their own demographic characteristics, socio-economic status, health characteristics and health behaviors (Reichman et al. 2001). Interviews were conducted in both English and Spanish.

Since our main variable of interest—Spanish language of interview—is salient only to Hispanic mothers, we exclude non-Hispanic white and non-Hispanic black mothers who were not born in the United States (n=51 and n=111, respectively); U.S. born non-Hispanic white and non-Hispanic black mothers are retained in the analysis for comparative purposes. We exclude mothers of other racial or ethnic backgrounds due to insufficient numbers of these women in the sample. Only women who participated in all four waves of the Study are included in the analysis.

RESULTS

Our preliminary analysis indicates that when stratifying self-reported health by race/ethnicity and nativity, U.S. born mothers—whether they are Hispanic, non-Hispanic black, or non-Hispanic white—are progressively less likely to rate their health as excellent or very good (see Table 1). The opposite is true, however, for foreign born Hispanic mothers. While at baseline 48 percent of foreign born Hispanic mothers rated their health highly, more than 49 percent did so at the 1 year follow-up and slightly more than 54 percent did so at the 3 year follow-up. While this percentage dipped to almost 51 percent at the 5 year follow-up, at all points in time foreign born Hispanics rate their health as worse than do Hispanic, non-Hispanic black, and non-Hispanic white U.S. born respondents. Moreover, in all four waves mothers who were originally interviewed in Spanish were less likely to rate their health as excellent or very good, than those who answered in English (see Table 2). While mothers who answered in English follow the trend of declining self-rated health seen for U.S. born respondents in Table 1,

the change pattern among mothers initially interviewed in Spanish does not present any clear trend.

Further analysis will include multivariate models predicting self-rated health by race/ethnicity, nativity and duration in the U.S., and language of interview, as well as three other measures of acculturation—whether the respondent feels an attachment towards their racial/ethnic heritage, whether the respondent participates in cultural practices, and frequency of church attendance. Additionally, models will control for measures of socio-economic status and health-related behaviors, as well as whether the respondent has a health problem which limits employment and the number of times the respondent was hospitalized in the past 12 months (see Table 3).

To model changes in self-assessed health over time we will employ longitudinal growth curve analysis. This method provides to important advantages for answering the questions that we are concerned with in this analysis. First, we can tell how individual's self-rated health changes over time, and what predicts these changes. Second, this technique allows us to treat our measures of duration in the U.S. and language of interview as time-varying variables, a considerable improvement over previous studies because we can measure these features as fluctuating attributes rather than static traits of individuals (see McDonough and Berglund 2003 for a similar discussion of the relationship between poverty and self-rated health).

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Table 1. Percentage of respondents rating their health as excellent or very good, by race/ethnicity and nativity, at baseline, 1 year follow-up, 3 year follow-up and 5 year follow-up.

Percent rating health as excellent/very good	U.S. Born Non-Hispanic White	U.S. Born Non-Hispanic Black	U.S. Born Hispanic	Foreign Born Hispanic
Baseline	78.4	65.9	63.4	48.0
1 Year Follow-up	67.9	62.6	60.2	49.4
3 Year Follow-up	67.4	60.6	59.0	54.2
5 Year Follow-up	61.6	55.0	57.7	50.9
n	769	1718	586	348

Source: Fragile Families and Child Wellbeing Study.

Table 2. Percentage of Hispanic respondents rating their health as excellent or very food, by language of interview at baseline.

Percent of Hispanics rating health as excellent/very good	English	Spanish
Baseline	64.90	44.78
1 Year Follow-up	62.09	42.57
3 Year Follow-up	60.37	49.75
5 Year Follow-up	58.35	45.54
n	641	201

Source: Fragile Families and Child Wellbeing Study.

Table 3. Descriptive Characteristics of Dependent and Independent Variables, baseline and 1 year follow-up, by race and ethnicity.

	U.S. Born Non-Hispanic White	U.S. Born Non-Hispanic Black	U.S. Born Hispanic	Foreign Born Hispanic
Self-rated Health at Baseline Interview				
Excellent	38.0	33.9	29.01	17.5
Very Good	40.4	31.8	34.3	30.5
Good	18.7	26.4	29.5	37.6
Fair	2.7	7.3	6.3	13.5
Poor	0.1	0.4	0.7	0.9
Language of Interview, Nativity/Duration, Measures of Acculturation				
Interviewed in Spanish at baseline interview (%)	--	--	2.3	69.7
Nativity				
U.S. Born	100.0	100.0	100.0	--
≤ 5 years in U.S. at baseline interview	--	--	--	40.3
> 5 years in U.S. at baseline interview	--	--	--	59.7
Feels an attachment toward racial/eth heritage (%)[1]	80.0	78.6	74.2	81.4
Participates in cultural practices (%)[1]	50.9	65.6	72.2	85.3
Attends religious services at least once a week (%)[2]	26.0	31.5	24.4	45.7
Objective Health and Health Behaviors[2]				
Has health problem that limits work (%)	6.5	8.0	7.2	6.0
Smoked cigarettes in the past month (%)	36.3	28.2	27.6	4.9
Drank alcohol in the past month (%)	49.5	29.4	30.7	14.1
Demographic and Socio-economic Status at Baseline Interview				
Age in years	27.2	24.3	23.4	26.3
Has at least a high school diploma/GED (%)	83.4	67.4	58.4	39.5
Employed in year of baseline interview (%)	66.7	57.5	48.6	36.5
Total household income < $15,000 (%)	16.0	47.5	41.9	41.0

Source: Fragile Families and Child Wellbeing Study.

[1] Note: only asked in year 1 follow-up.
[2] Note: first asked in year 1 follow-up; results here presented for year 1 follow-up.