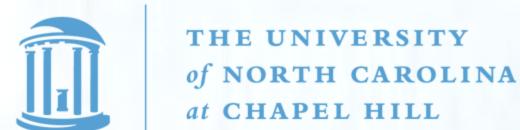# Comparing Depression and Anxiety Symptoms Among Elderly Puerto Ricans and Other Latinos

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Abstract

A secondary analysis was performed on the Primary Care Research in Substance Abuse and Mental Health for the Elderly (PRISM-E) dataset (Levkoff et al., 2004), a randomized clinical trial of integrated primary care-mental health treatment with 2,244 elderly primary care patients from 11 study sites across the U.S. The CES-D and BAI were used to assess elderly participants for depression and anxiety. CES-D baseline scores were 3.4 points higher for Latinos than Non-Latino Whites. However, CES-D baseline scores for those born in Puerto Rico were 2.5 points lower than are other reported Latinos. Results on the BAI present no differences between those elderly born in Puerto Rico and other Latino country.

Purpose of the Study

The purpose of this study was to assess variations in clinical psychiatric symptoms among elderly Hispanics who reported country of birth if not the U.S.. The hypothesis of this study is that Elderly Puerto Ricans will have fewer clinical psychiatric symptoms than other elderly Hispanics.

Clinical Psychiatric Symptomatology among Elderly Latinos

Mental health issues among the elderly are frequently unrecognized, untreated, or undertreated (USDHHS, 1999; Akincigil et al., 2012). This is a major problem, particularly when the elderly Hispanic population, 65 and over, is becoming the fastest growing segment of the U.S. elderly population (NHCOA, 2011) and when there is limited knowledge about the mental health needs of elderly Hispanic populations in the U.S. (Alegría et al., 2009). This gap is partly due to researchers lumping Hispanic subgroups into a single category when in fact each ethnic subgroup within the Hispanic population has its own customs, beliefs, norms, and values that influence mental well-being (Alegría et al., 2008; Jerant et al., 2008; Vargas et al., 2010). As a result, we know relatively little about whether and how mental health symptoms vary within Hispanic subgroups and how these patterns compare with whites and other minorities.

Method

Data Source

The PRSIM-E dataset has a sample of 2,244 elderly primary care patients from different racial categories (see Table 1). Subjects are 65 or over, of both genders, who met diagnostic criteria for one or more of the following target conditions: (a) depression (major, minor, dysthymia, or depression NOS), (b) anxiety (Generalized Anxiety, Panic Disorder, or Anxiety NOS), (c) "at risk" drinking, and (d) alcohol and concurrent use of psychotropic medications.

Measures & Statistical Analysis

Participants' baseline scores on continuous outcome measures from the Center of Epidemiological Studies–Depression Scale (CES-D) and the Beck Anxiety Inventory (BAI) were used. Continuous outcome measures for depression and anxiety as well as other binary variables outcomes were modeled using an ordinary least squares (OLS) regression model. Tests to examine multicollinearity as well as heteroskedasticity were performed to verify that no OLS assumptions were violated in these analyses. Statistical tests were conducted on whether the differential effect of being Puerto Rican is zero, indicating whether Puerto Ricans have different average levels of study outcomes as other Latino groups.

Results

After adjusting for moderating variables such as social support systems, socioeconomic factors, and assistance to religious/spiritual activities (see Table 2), OLS analysis indicate that elderly born in Puerto Rico will have lower scores on the CES-D than elderly born in the U.S.. No statistical differences exist between elderly participants born in Puerto Rico and Other Latino country on the CES-D.

Table 1. *Participants Demographic Information*

Variables	n	%
Race		
White	1,573	70.1
Afro American	536	23.9
Asian American	112	5.0
Native American	23	1.0
Any Latino	573	25.5
Country of Birth		
United States	1,779	79.5
Puerto Rico	173	7.7
Other Latino country	104	4.7
China	94	4.2
Other country	87	3.9
Non White	983	43.9
Female	542	24.1
Social support (visits friends/relatives)		
None	311	14.0
1 or 2 times a month	655	29.5
3 to 5 times a month	636	28.6
6 to 9 times a month	270	12.2
10 or more times a month	348	15.7
Assistance to religious/spiritual activities		
Daily	167	7.5
Weekly	685	30.8
Monthly	171	7.7
On special occasions	643	28.9
Never	560	25.1
Financial situation		
Can't make ends meet	456	20.7
Have just enough to get along	1,024	46.6
Are comfortable	720	32.7

Note. Sample mean age = 73.4 years (SD = 6.1); range: 65-103.

Results (cont.)

In terms of BAI scores, elderly born in Other Latino countries will have lower scores than elderly born in the U.S.. No statistical differences exist between elderly participants born in Puerto Rico and Other Latino country on the BAI.

Table 2. *Ordinary Least Square Beta Coefficients and Standard Errors for CES-D and BAI scores*

Variables	CES-D Model 1 β	S.E.	CES-D Model 2 β	S.E.	BAI Model 1 β	R.S.E.	BAI Model 2 β	R.S.E.
Any Latino	6.61*	0.72	3.45*	0.82	3.74*	1.20	4.03*	1.34
Country of Birth								
United States	(ref.)		(ref.)		(ref.)		(ref.)	
Puerto Rico	-6.10*	1.10	-2.54*	1.13	-2.76	1.78	-2.80	1.91
Other Latino country	-3.20*	1.36	-0.78	1.35	-3.85	2.08	-4.31*	2.09
China	-2.27	1.35	-1.65	1.28	-1.34	2.12	-1.68	1.99
Other country	0.22	1.54	0.73	1.46	2.30	1.80	-2.37	1.79
Non White			2.06*	0.56			-0.52	0.86
Female			1.42*	0.58			-1.75*	0.72
Social support								
None			(ref.)				(ref.)	
1 or 2			-2.76*	0.76			-1.18	1.15
3 to 5			-4.92*	0.78			-1.53	1.20
6 to 9			-6.12*	0.97			-0.91	1.48
10 or more			-5.93*	0.94			-0.99	1.44
Assistance to religious/spiritual activities								
Daily			(ref.)				(ref.)	
Weekly			-1.22	1.00			-1.96	1.37
Monthly			0.01	1.24			-1.17	1.90
On special occasions			0.78	1.00			-0.66	1.36
Never			2.08*	1.01			-1.03	1.42
Financial situation								
Can't make ends meet			(ref.)				(ref.)	
Have just enough to get along			-3.41*	0.65			-2.24*	1.02
Are comfortable			-5.32*	0.74			-3.75*	1.08
Constant	22.00		27.53		15.80		20.90	
N	1732		1732		846		846	
R^2	.052		.16		.02		.04	
Adj. R^2	.050		.15		---		---	

Note. Reference group is elderly non-Hispanic White born in the United States.; *$p \leq .05$.

Discussion

Our findings suggest that, even though elderly Latinos born in Puerto Rico or another Latino country present similar depression and anxiety scores, Latinos should not be considered a monolithic group. Elderly born in Puerto Rico had lower depression scores than those born in the U.S.. This was also true for anxiety, where elderly from Other Latino countries had lower scores than those born in the U.S.. Alegría et al. (2009) support this finding indicating that U.S. born are at higher risk for disorders than immigrants, thus providing evidence in support of the immigrant paradox. This can explain our findings for the Other Latino country group. However, this paradox does not hold up for Puerto Ricans. Further research is needed with the Puerto Rican elderly population to study what particular factors beyond foreign nativity, social support, assistance to religious/spiritual activities, and financial situation can explain these differences with U.S. born elderly.

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