Dynamics of Elderly Mexican American Living Arrangements
Extended Abstract

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Abstract

This study examines the living arrangements and transitions of elderly Mexican Americans using data over a 14 year period from the Hispanic Established Population for Epidemiologic Studies of the Elderly. While elderly Mexican Americans are more likely than non-Hispanics to rely on family for their long-term care needs, much less in known about how this relationship changes over the elderly life course. This study moves beyond prior research by examining the *stability* of elderly Mexican American living arrangements, exploring the role of nativity and disability in shaping living arrangement experiences. We find that despite being more likely to live with others as a dependent, foreign-born Mexican Americans are more likely to experience living arrangement instability than their U.S.-born counterparts. In addition, survival analyses predicting the time to first transition indicate that once disability and cognitive impairment are taken into consideration, the protective effects of being foreign-born are no longer significant.

Introduction

Over the past fifty years, life expectancy rose dramatically in the United States. Today, the average American is expected to live to age 78, up from 70 years in 1960 (Arias, 2010). Despite lower socioeconomic status, the Mexican American population enjoys a more favorable morality profile than non-Hispanics, living to 80 years compared to 78 years for non-Hispanic whites and 73 years for blacks. However, longer life spans do not extend to low morbidity. Elderly Mexican Americans are at high risk of poor health, beset by diabetes, mental illness, substance abuse, Alzheimer's disease, and other chronic conditions in late life (Haan et al., 2003). In total, after age 65, Mexican American have higher rates of chronic illness than non-Hispanic whites (Black, Ray, & Markides, 1999), and these problems are exaggerated in deep-old age, cognitive impairment and poor executive functioning are quite common (Royall, Espino, et al., 2004; Royall, Mulroy, Chiodo, & Polk, 1999).

Despite these high rates of disability, Mexican Americans are more likely than non-Hispanics to rely on family for their long-term care needs (Glick, 1999; Angel et al. 2004). In addition, immigrants (VanHook & Glick, 2007) and especially those who migrate to the U.S. later in life are particularly dependent on their families (Angel, et al., 1999). While a family may want to care for their aging parents (and these strong Mexican American familial values are well documented), the care that they may need as they age, particularly for a long time period, may create a significant burden on family.

This paper explores the role of nativity and health on patterns in residential mobility among unmarried elderly Mexican-Americans. Although the higher probability of long-term family living arrangements is well documented, the impact of changes in health (or more specifically, disability) on late-life living arrangements is poorly understood. The aging of the Mexican Among elderly population itself accompanies a greater need for assistance, especially as those needs become more intense and specialized, making it harder for families to cope. To address these issues, this paper asks the following questions:

1) How does nativity shape living arrangement trajectories over the elderly Mexican American life course, in both the types and frequency of transitions?
2) How, if at all, does health and disability affect the relationship between nativity and living arrangement stability?

This paper builds on previous research on Mexican American living arrangements by exploring living arrangements and transitions using longitudinal data analyses to address the dynamic nature of elderly Mexican-American living arrangement trajectories. Whereas prior research addressing elderly Mexican-Americans has typically used two data points to address transitions, these analyses exploit six waves of data that stretch well into deep-old age, a particularly vulnerable time period where until recently, little data, especially for minority populations such as Mexican Americans, has been available.

Data and methods

Data. The present study uses the Hispanic Established Population for Epidemiologic Studies of the Elderly (H-EPESE), which contains a probability sample of Mexican Americans aged 65 years and older who resided in Arizona, California, Colorado, New Mexico, or Texas at the beginning of the study. The study has released six waves of data, beginning in 1993 with sixth wave of data collection covering up to 2007.

Sample. These analyses focus on a subsample of unmarried Mexican-Americans aged 65 years and older. The unmarried are a particularly vulnerable group who, unable to rely on their spouse for care, experience greater variability in the living arrangements. The study includes all unmarried persons at wave 1 who either survive through wave 6 or who die prior to the sixth wave. A small number who were lost to attrition resulting from something other than death are excluded from the study.

Variables. The key dependent variable is living arrangement status, classified as either living alone, living with others as the head of household, or living with others as a dependent. The majority of respondents in the H-EPESE who live with others are living with family members. These categories create a proxy scale of dependency, where living alone requires a great deal of independence, and living with others as a dependent the least independent state. In some of the analyses, death is also considered as a status. Independent variables of interest include nativity and health and disability indicators.

Methods. To explore changes in living arrangements, a person-wave file is constructed to create age-specific hazard rates and conduct event history analyses that predict living arrangement status transitions. The maximum number of observations one respondent may have is six (for each wave they are interviewed), while the minimum is one (for those who die in wave 2). In the event history analyses, independent variables are lagged to estimate the effect of present characteristics on future living arrangements or experiencing a transition.

We first identify living arrangement status over time for both the US-born and foreign-born populations, and look at status transitions between waves. Then, we estimate the likelihood of cumulative instability across the elderly life course. Third, we employ survival analysis, exploring the role of nativity and disability in predicting living arrangement transitions to determine whether the differences by nativity still persist. Finally, we address the role of health and nativity in relation to cumulative experience of living arrangement transitions.

Preliminary Findings

Table 1 displays living arrangement statuses over the six wave study period by nativity (foreign versus U.S. born). In line with previous research, foreign-born elderly Mexican Americans are much more likely to live with others as a dependent than those born in the U.S. Table 2 highlights the nature and types of living arrangement transitions of elderly Mexican Americans across the six waves of data. In each wave, approximately 20 percent of the sample experiences a living arrangement status transition. Attrition due to death becomes larger as the sample ages. Table 2 demonstrates there is great diversity in the types of transitions elderly Mexican Americans experience, indicating that in addition to frequently experiencing a transition, it is not always to a greater level of dependency, creating much more heterogeneity in the experiences of Mexican American elderly.

Table 3 explores the quantity of transitions over the elderly life course. The majority of elderly Mexican Americans in our sample experienced a transition. And despite the higher likelihood that foreign born Mexican-Americans will live with others as a dependent, they are also more likely to experience a transition in living arrangement status compared to their U.S. born counterparts. In addition, they are more likely than the U.S. born to spend a greater proportion of their elderly years experiencing living arrangement status transitions.

Figures 1a and 1b display survival estimates for age-specific rates predicting transition, by nativity. Figure 1a reflects the favorable mortality rate for foreign born Mexican Americans, where death is included as a transition status. Including death as a transition status indicates that U.S. born Mexican Americans are more likely to experience a transition. However, if we exclude death as a transition status, such as in figure 1b, we see the relationship reversed and foreign born Mexican Americans more likely to experience a living arrangement transition.

To disentangle these relationships further and control for other factors that may influence living arrangement, such as age and disability, we conduct survival analyses predicting time to a dependent living arrangement status. Table 3 displays these results. Model 1 is the most parsimonious model, controlling only for age, gender, financial strain, and nativity. Nativity is significant, showing that foreign-born elderly Mexican Americans are less likely to experience a transition to a more dependent living arrangement status. Controlling for difficulties with an Activity of Daily Living (ADL) does not change this relationship. However, adding controls for cognitive impairment and depression in models 3 and 4 rules nativity insignificant. This indicates that much of the living arrangement stability disparity that we see between foreign and U.S. born elderly Mexican Americans operates through higher disability rates among the U.S. born.

Finally, while the survival analyses explore time to *first* transition, figure 3 provides coefficients of a multivariate regression model predicting the proportion of data waves a respondent experienced a living arrangement status transition. This figure illustrates that cumulative transition experience operates differently than transition type, such as in table 3. For example, baseline disability appears to not significantly predict the frequency of transition, while being foreign born increases the likelihood of experiencing a greater proportion of the elderly life course transitioning living arrangement statuses.

Discussion

Does the Mexican American mortality advantage translate to the discussion on living arrangements? While the protective effects of nativity and immigration are often highlighted, this research shows that initially foreign-born are less likely to experience an earlier living arrangement transition, but once health characteristics are controlled for, this protective effect disappears. In addition, when looking at the cumulative elderly life course, being foreign-born actually increases the amount of transitions an elderly Mexican American will experience.

This research contributes both conceptually and methodologically to the discussion surrounding the long-term care of elderly, particularly vulnerable populations such as Mexican Americans who are poorer, suffer more disability, and who are more likely to depend on family for assistance and support as they age. First, this research contributes conceptually by adding to the discussion on 'familia,' stressing the need for further exploration of the boundaries of the protective effects of culture. Importantly, this research illustrates that while families are an important resource for elderly Mexican Americans, this can be an unstable institution that will need additional support. Methodologically, the longitudinal analyses illustrate the dynamic and fluid nature of elderly Mexican-American living arrangement trajectories, which prior research on this population has not fully achieved.

These findings have implications for both our understanding of the elderly Mexican American experience, policy, and future research. First, this research sheds light on the variability of experience both in absolute terms and at an individual level, and that these experiences are qualitatively different. Second, the elderly Mexican Americans are the fastest growing segment of the U.S. population (U.S. Census Bureau, 2008). Understanding the long-term care needs of this population who will have a large impact on the social welfare systems charged with assisting in the care of this population is an essential part of informing policy changes and anticipating the consequences of any social safety net programs that will come during the current efforts by Congress to cut government spending.

Finally, additional analyses will build upon these preliminary findings by exploring further the role of health, nativity, and life course stage of migration in shaping living arrangement status trajectories, including not just transitions to dependent states, but factors that enable independent living. Our preliminary findings indicate that much nuance exists in the processes that lead to different living arrangement transitions and the intensity of those transitions, which future research needs to account for.

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Table 1. Unmarried Mexican Americans Waves 1 through 6 by Living Arrangement and Nativity
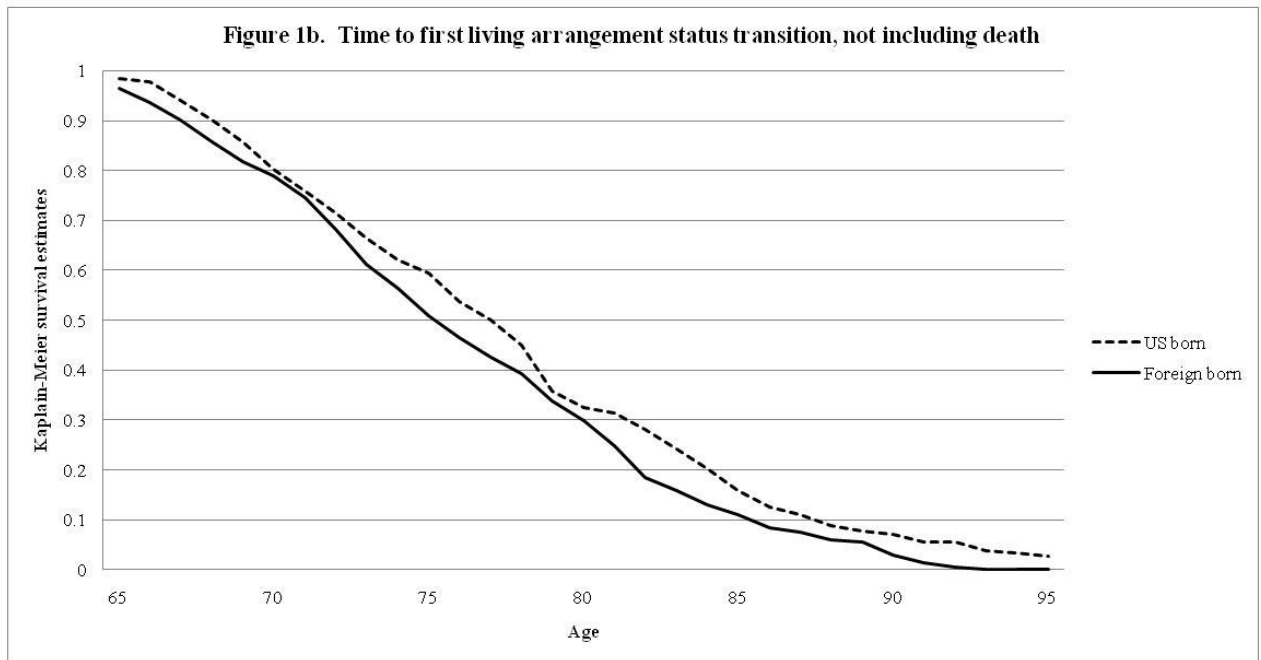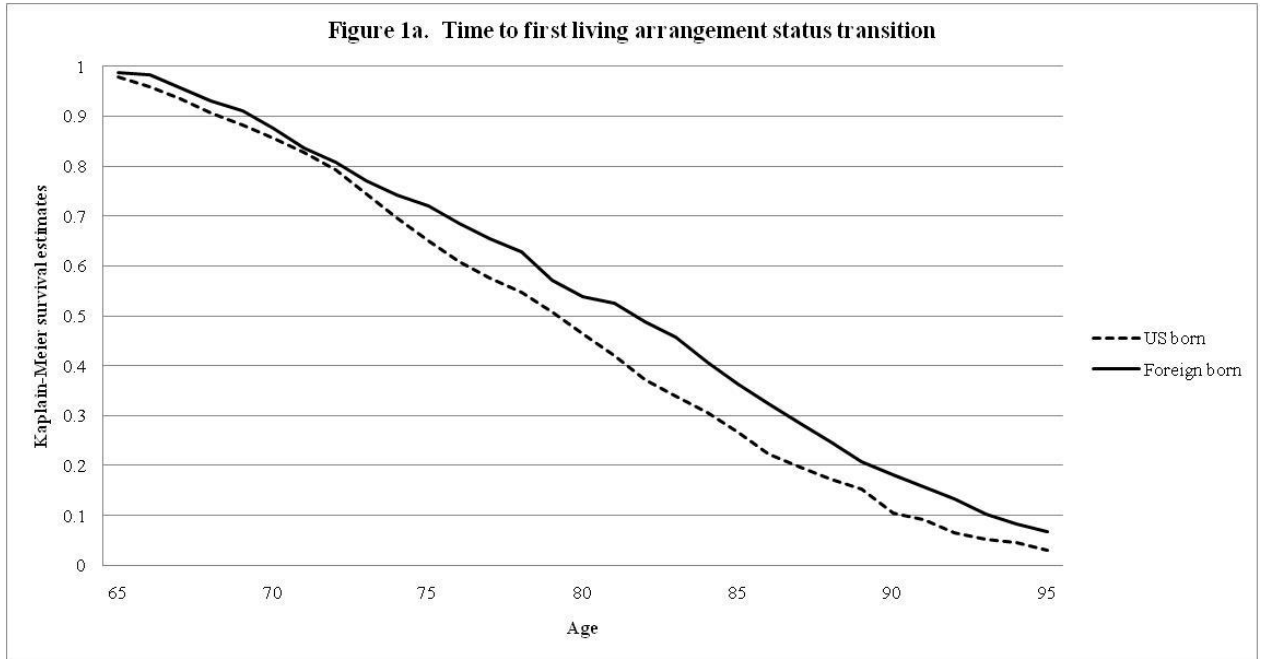
	Wave 1		Wave 2		Wave 3		Wave 4		Wave 5		Wave 6	
	n	%	n	%	n	%	n	%	n	%	n	%
Total Sample												
Average age (years)	76.0		77.7		79.6		81.1		83.9		84.7	
Living alone	412	45.1	359	45.3	267	43.2	235	45.5	149	42.9	107	42.5
Living with others as head	283	31.0	262	33.1	188	30.4	158	30.6	116	33.4	81	32.1
Living with others as dependent	219	24.0	171	21.6	163	26.4	123	23.8	82	23.6	64	25.4
US-born												
Living alone	244	49.8	210	49.4	157	45.6	140	47.1	92	46.5	58	40.9
Living with others as head	164	33.5	151	35.5	117	34.0	105	35.4	74	37.4	51	35.9
Living with others as dependent	82	16.7	64	15.1	70	20.4	52	17.5	32	16.2	33	23.2
Foreign-born												
Living alone	168	39.6	149	40.6	110	40.2	95	43.4	57	38.3	49	44.6
Living with others as head	119	28.1	111	30.3	71	25.9	53	24.2	42	28.2	30	27.3
Living with others as dependent	137	32.3	107	29.2	93	33.9	71	32.4	50	33.6	31	28.2
Sample Size	914		792		618		516		347		252	

Table 2. Unmarried Mexican Americans aged 65 years and older living arrangement status transition type

	Wave 1		Wave 2		Wave 3		Wave 4		Wave 5	
	n	%	n	%	n	%	n	%	n	%
Experienced living arrangement status change in subsequent wave:	317	34.7	340	37.2	229	37.1	269	52.1	156	45.0
To alternate living arrangement	*195*	*21.3*	*166*	*21.0*	*127*	*20.6*	*100*	*19.4*	*61*	*17.6*
Death	*122*	*13.3*	*174*	*22.0*	*102*	*16.5*	*169*	*32.8*	*95*	*27.4*
Transition type										
Transitioned to:										
Living alone	55	17.4	34	10.0	43	18.8	31	11.5	15	9.6
Living with others as head	85	26.8	57	16.8	43	18.8	35	13.0	19	12.2
Living with others as dependent	55	17.4	75	22.1	41	17.9	34	12.6	27	17.3
Death	122	38.5	174	51.2	102	44.5	169	62.8	95	60.9
Living alone to:										
Living with others as head	42	38.9	35	27.8	23	30.7	23	19.7	10	17.5
Living with others as dependent	19	17.6	22	17.5	14	18.7	21	18.0	13	22.8
Death	47	43.5	69	54.8	38	50.7	73	62.4	34	59.7
Living as head to:										
Living alone	39	36.8	28	21.4	24	32.9	23	29.9	10	18.5
Living with others as dependent	36	34.0	53	40.5	27	37.0	13	16.9	14	25.9
Death	31	29.3	50	38.2	22	30.1	41	53.3	30	55.6
Living as dependent to:										
Living alone	16	15.5	6	7.2	19	23.5	8	10.7	5	11.1
Living with others as head	43	41.8	22	26.5	20	24.7	12	16.0	9	20.0
Death	44	42.7	55	66.3	42	51.9	55	73.3	31	68.9
Sample Size	914		792		618		516		347	

Table 3. Unmarried Mexican Americans aged 65 years and older living arrangement status transitions by Nativity						
	All		US-born		Foreign-born	
	n	%	n	%	n	%
Experienced Non-Death Transition	387	42.3	204	41.6	183	43.2
One	212	23.2	111	22.7	101	23.8
Two	107	11.7	66	13.5	41	9.7
Three	50	5.5	23	4.7	27	6.4
Four	17	1.9	4	0.8	13	3.1
Five	1	0.1	0	0.0	1	0.2
Proportion of waves alive experienced a transition						
None	527	57.7	286	58.4	241	56.8
Between 1 and 25%	82	9.0	46	9.4	36	8.5
Between 26 and 50%	160	17.5	94	19.2	66	15.6
51 to 75%	127	13.9	60	12.2	67	15.8
76% or more	18	2.0	4	0.8	14	3.3
Sample Size	914		490		424	

Figure 1a. Time to first living arrangement status transition

Figure 1b. Time to first living arrangement status transition, not including death

Table 4. Survival analysis predicting risk of dependent living arrangement status transition (independent variables lagged by one year) for Unmarried, Elderly Mexican-Americans living alone or as head of household at baseline

	Models			
	1	2	3	4
	Risk ratio	Risk ratio	Risk ratio	Risk ratio
Age	1.56***	1.054***	1.05***	1.05***
	(0.009)	(0.010)	(0.010)	(0.010)
Gender (reference: male)				
Female	1.04	1.03	1.10	1.16
	(0.159)	(0.160)	(0.173)	(0.183)
Education (reference: no high school diploma/GED)				
High school diploma/GED	1.19	1.19	1.36	1.34
	(0.302)	(0.302)	(0.351)	(0.346)
Nativity (reference: US born)				
Foreign born	0.78*	0.78*	0.79	0.83
	(0.097)	(0.097)	(0.100)	(0.104)
Financial Strain (reference: has no or little trouble)				
Has some or a great deal of difficulty meeting monthly bills	1.04	1.04	0.97	0.98
	(0.132)	(0.132)	(0.125)	(0.128)
Indepent Activities of Daily Living (reference: experiences no difficulty)				
Has difficulty with an I-ADL				
Activities of Daily Living (reference: experiences no difficulty)				
Has an ADL		1.19	1.17	1.26
		(0.193)	(0.189)	(0.210)
Cognitive Functioning (reference: no cognitive impairment)				
Experiences mild or severe cognitive impairment			1.48***	1.45***
			(0.200)	(0.199)
Depression (reference: no depression symptoms)				
Exhibits syptoms of depression				0.64***
				(0.107)
* p<0.05, ** p<0.01, *** p<0.001				
Data source: H-EPESE, Waves 1 through 6, 1993 - 2007.				
Note: does not include transitions to death				

Figure 2. Predicting proportion of waves experienced a living arrangement status transition

* p<0.05, ** p<0.01, *** p<0.001