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Segmented assimilation theory and perinatal health disparities among women of Mexican descent☆

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ABSTRACT

A higher prevalence of infant low birth weight (<2500 g) has been observed among more acculturated mothers of Mexican descent living in the U.S. when compared to their less acculturated counterparts. Tests of the "acculturation hypothesis" have established that disparities in certain risks for low birth weight exist between subgroups of women of Mexican-origin. However, disparities observed by neighborhood of residence have yet to be explained. Most tests of the acculturation hypothesis assume a classical path of assimilation, whereby Mexican American health is expected to deteriorate with time spent residing in the U.S. and across the generations. The theory of segmented assimilation suggests that alternative paths are possible depending upon individual characteristics and the context of the neighborhood into which immigrant families and their children reside. This study tested the theory of segmented assimilation as a framework for examining the geographic, cultural, and socioeconomic underpinnings of population differences in infant low birth weight among women of Mexican descent in California using the 2000 U.S. Census and population-based data from the Maternal and Infant Health Assessment (1999–2005) ($n = 6442$). Little support was found for the theory's hypotheses. Rather, increased odds for infant low birth weight were observed for English speakers residing in Latino immigrant neighborhoods when compared to English speakers in other neighborhoods, an effect attenuated for Spanish speakers. Elevated odds of low birth weight were also observed among English speakers residing in Latino immigrant neighborhoods when compared to Spanish speakers in the same neighborhoods. Findings suggest the transfer of health-specific social capital in ethnic neighborhoods may depend upon sociocultural consonance between individuals and neighborhood residents. The authors call for additional research that sheds light on the sociocultural dynamics of maternal and infant health at multiple levels.

Background

A higher prevalence of infant low birth weight (<2500 g) has been observed consistently among more acculturated women of Mexican descent living in the U.S. when compared to their less acculturated counterparts. Given that less acculturated women tend to be of lower socioeconomic status, and typically have reduced access to health insurance and less adequate medical care during pregnancy, this persistent finding has been described as an "epidemiological paradox" (Markides & Coreil, 1986). Explanations for disparities in infant low birth weight among subgroups of women of Mexican descent have focused on two major mechanisms: selection and acculturation. The selection or "healthy migrant" hypothesis suggests that women of better health in Mexico are more likely than their less healthy counterparts to immigrate to the United States (Abraido-Lanza, Dohrenwend, Ng-Mak, & Turner, 1999; Palloni &

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Morenoff, 2001). Although this explanation may be plausible, particularly among the poorest of Mexicans, there is little evidence to support or refute this proposition as it relates to birth outcomes (Notzon, Bobadilla, & Coria, 1992).

The "acculturation hypothesis" presumes that perinatal health practices embedded in Mexican culture deteriorate as new risks are acquired through assimilation. The evidence regarding acculturation and birth weight among women of Mexican descent is drawn from a heterogeneous set of studies that have relied on diverse study designs and measures of acculturation that assume as individuals become more acculturated to mainstream society, their attachment to their culture of origin weakens (Table 1). Across these studies, more acculturated women of Mexican descent tend to have a higher prevalence of low birth weight infants when compared to less acculturated women (Cervantes, Keith, & Wyshak, 1999; Cobas, Balcazar, Benin, Keith, & Chong, 1996; Collins & David, 2004; Collins & Shay, 1994; Coonrad, Bay, & Balcazar, 2004; English, Kharrazi, & Guendleman, 1997; Fuentes-Afflick, Hessol, & Perez-Stable, 1998; Guendelman & English, 1995; Guendelman, Gould, Hudes, & Eskenazi, 1990; Scribner & Dwyer, 1989; Stinson, Lee, Heilemann, Goss, & Koshar, 2000; Zambrana, Scrimshaw, Collins, & Dunkel-Schetter, 1997). Support for the acculturation hypothesis also has been found for health behaviors associated with low birth weight such as smoking, drug and alcohol use, diet and nutrition, and work during pregnancy. Changes in reproductive behavior such as a younger age at first sexual intercourse, fewer planned pregnancies, and a greater likelihood of single parenthood have been observed with increasing acculturation. (Guendelman & English, 1995; Guendelman et al., 1990; Harley, Eskenazi, & Block, 2005; Reynoso, Felice, & Shragg, 1993; Scribner & Dwyer, 1989; Wolff & Portis, 1996; Zambrana et al., 1997). More acculturated women of Mexican descent also report more prenatal stress and fewer positive attitudes toward their pregnancy whereas immigrant Mexican women are more likely to report psychosocial assets such as support during pregnancy from the infant's father, the availability of social networks, and fewer stressful life events (Sherraden & Barrera, 1996a, 1996b; Zambrana et al., 1997; Zambrana, Silva-Palacios, & Powell, 1992). Yet these factors do not fully explain disparities in birth outcomes among women of Mexican descent. Adding complexity to these findings, studies suggest that the features of the neighborhoods where women of Mexican-origin reside are related to birth outcomes (Collins & Shay, 1994; Finch & Lim, 2004; Peak & Weeks, 2002). These claims are central to the theory of segmented assimilation, which presumes that the life chances of immigrants and their children depend on divergent paths of acculturation that are partly conditioned by the community context (Portes & Zhou, 1993).

Table 1
Proportion of low birth weight by level of acculturation among women of Mexican-origin, 1989–2004.

Study	Sample size	Measure of acculturation	% LBW	
			Acculturation level	
			Low	High
Scribner and Dwyer (1989)	1645	Acculturation Rating Scale for Mexican Americans (ARSMA) items	3.9	*5.5
Guendelman et al. (1990)	1390	Generation	3.9	*6.1
Collins and Shay (1994)	11,263	Birthplace	4.0	*6.0
Guendelman and English (1995)	1114	Length of residence	4.0	*5.9
Cobas et al. (1996)	1645	ARSMA items	3.9	*5.5
Wolff and Portis (1996)	767	ARSMA items	4.9	5.5
English et al. (1997)	4404	Birthplace	3.7	*5.3
		Language	3.9	*5.3
Zambrana et al. (1997)	911	Birthplace, length of residence	2.6	4.6
Fuentes-Afflick et al. (1998)	257,085	Birthplace	4.3	5.2
Cervantes et al. (1999)	13,208	Birthplace	4.8	5.9
Stinson et al. (2000)	783	Birthplace	4.3	*7.8
Collins and David (2004)	45,445	Generation	5.1	*7.5
				*6.1
Coonrad et al. (2004)	1172	ARSMA items	5.8	*10.7

*$p < .05$.

Conceptual framework

Alejandro Portes and Min Zhou (1993) formalized their observations about the diverse socioeconomic trajectories of the post-1965 immigrants to the U.S. into the theory of segmented assimilation, which argues that immigrants may take at least three divergent paths of acculturation given a family's socioeconomic status, its structure, and the U.S. community into which it integrates. The first path follows classical assimilation theory, whereby new immigrants and their children assimilate more or less seamlessly into the mainstream middle-class. A second path leads to a dissonant form of acculturation characterized by intergenerational–intercultural parent–child conflict, low educational achievement, and downward assimilation into marginalized working class or "underclass" communities. A third path results in selective acculturation whereby middle-class status is eventually achieved through education and child-rearing practices that are reinforced by the values and sense of cohesion of strong co-ethnic communities.

Portes and Zhou (1993) note several vulnerabilities as well as resources that may be grounded in the social contexts of acculturating groups. Vulnerabilities include larger societal prejudices that are associated with race/ethnicity, the concentration of immigrant households in poor, inner city neighborhoods, and the absence of economic mobility ladders in such neighborhoods. Resources that may facilitate alternative paths of acculturation include eligibility for public benefits (as in the case of refugees), the exemption of certain foreign groups from traditional prejudices (such as white Europeans), and social capital. Of these three resources, social capital bears the most relevance to women of Mexican descent.

First described by Bourdieu (1985), and later by Coleman (1988), social capital represents the resources that are made available to individuals through their involvement and participation in social networks. In Portes' (1998) extensive review of the social capital literature, he identifies three basic forms and functions of social capital including family support, benefits that are provided through extrafamilial networks, and social control. For Bourdieu, cultural capital or the "habitus of cultural practices, knowledge, and demeanors learned through exposure to role models in the family and other environments" (p. 5 in Portes, 1998) represents a resource grounded in extrafamilial social networks when a sufficient number of ties between people exist to guarantee the observance of norms (Coleman, 1988).

Ethnographic studies of Latina social networks highlight the ways in which health-specific social capital may be conveyed to Latinas in their communities. Studies have found social networks to operate in gendered ways among Latinas (e.g., Hondagneu-Sotelo, 1994) that may include informal networks of prenatal care (Lagana, 2003; Weigers & Sherraden, 2001). These informal networks are characterized by a strong tradition of intergenerational knowledge transfer concerning diet and stress reduction during pregnancy and the provision of material and social support by spouses, family