The Latino/a paradox: A test of the healthy migrant and acculturation hypotheses

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Background

- The perinatal health needs of Latinas are of public health importance.

- Latinas account for a rapidly growing segment of the US population. In 2008, they comprised 14% of the adult female population[1], but gave birth to 25% of all babies born that year[2].

- Despite being more likely to live in poverty and be uninsured than their White counterparts[3], the infant mortality, low birthweight and preterm delivery rates of Latina women are *comparable* to those of White women and *better* than those of Black women[2].

- This unexpected advantage, which holds across mortality rates for Latinos of all ages, has been termed the epidemiological paradox[4].

- Two hypotheses used to explain the epidemiological paradox are[5]:
  - *Healthy migrant hypothesis* - Only the strongest and healthiest immigrants make it to the US, thereby explaining the favorable outcomes observed.
  - *Acculturation hypothesis* - High-risk behaviors increase, and potentially protective cultural values decrease, with increasing acculturation.

- Most research on this topic has been conducted on samples of Mexican women, and has been limited to the three adverse birth outcomes discussed above[5,6].

- **The current study sought to examine whether evidence for either hypothesis could be found by exploring relationships between acculturation and multiple birth complications in a sample of immigrant Latina women.**

Methods

- Sample: 147 Latinas between the ages of 18 and 35 who participated in a longitudinal study that evaluated the efficacy of a cognitive-behavioral intervention on preventing perinatal depression. Participants were recruited from a federally-funded clinic in the Washington, DC metropolitan area and had to be at high-risk for depression. See Tables 1 and 2 for demographic and immigration information.

- Measures:
  - *Acculturation*:
    - *English language use* was measured with the 4-item Short Acculturation Scale[7]. Higher scores indicated greater acculturation (range: 0-16).
    - *Length of time in the US* was calculated by subtracting age at immigration from age at the time of the interview.

    Both measures were administered at baseline which occurred prior to 24 weeks gestation
  - *Birth complications*: Occurrence of any of 38 potential birth complications were identified from labor and delivery records.

- Analysis: There were no differences in acculturation by intervention condition. Associations between acculturation and the various birth complications for the entire sample were assessed with point-biserial correlations (Tables 3 and 4).

Acknowledgments

Table 1

Demographic Characteristics

	n	%
Marital Status		
Single	42	28.6
Partner/Married	94	63.9
Other	11	7.5
Employment Status		
Employed	51	34.7
Unemployed	96	65.3
Health Insurance		
Insured	102	69.4
Uninsured	45	30.6
	M	SD
Age	25.2	4.5
Years of Education	8.9	3.9

Table 2

Immigration-Related Information

	n	%
Country of Birth		
El Salvador	86	58.5
Mexico	19	12.9
Honduras	16	10.9
Guatemala	15	10.2
Nicaragua	3	2.0
Other	8	5.5
Years lived in the US		
Less than 2 years	47	32.6
2-4.9 years	47	32.6
5 or more years	50	34.7
	M	SD
Age at Immigration	21.4	5.1

Table 3

Outcomes associated with **increased** acculturation

Complication	n	English language ability r	Length of time in the US r
Prenatal			
Preeclampsia	4	0.25**	0.27**
Urinary tract infections (UTIs)	5	0.14*	---
Inadequate prenatal care	120	---	0.14*
Postpartum			
1-min APGAR<8	19	---	0.17*
5-min APGAR<8	4	.21*	.16*
Low birthweight	12	---	0.18*

*p<.05, **p<.001

Table 4

Outcomes associated with **decreased** acculturation

Complication	n	English language ability r	Length of time in the US r
Prenatal			
Anemia	23	---	-0.15*
Inadequate weight gain	65	---	-0.15*
Intrapartum			
Meconium staining	19	-0.15*	-0.18*

*p<.05

Results

- Different birth complications were more common at different stages of the acculturation process.

- Relationships between acculturation and birth complications varied by the acculturation measure used.
  - *Length of time in the US* was associated with more adverse birth outcomes than was *English language ability*.
  - Occurrence of UTIs was the only outcome that was related to *English language ability* and not *Length of time in the US*.

- Complications associated with **increased** acculturation (Table 3)
  - *English language use* was significantly positively correlated with preeclampsia and UTIs during the prenatal period and with infant 5-minute APGAR scores lower than 8.
  - *Length of time in the US* was also positively related to preeclampsia and low 5-minute APGAR scores. Additionally, it was significantly positively related to inadequate prenatal care during the prenatal period and low infant 1-minute APGAR scores and low birthweight.

- Complications associated with **decreased** acculturation (Table 4)
  - *English language use* was significantly negatively correlated only with meconium staining.
  - *Length of time in the US* was also negatively related to meconium staining, but was also related to inadequate weight gain and anemia during the prenatal period.

Discussion

- Immigrant Latinas experience negative birth outcomes that are not commonly explored in research[8].

- The findings do not support the *healthy migrant hypothesis* as inadequate weight gain, anemia, and meconium staining were more likely to occur within the first few years of arriving in the US.

- Partial evidence for the *acculturation hypothesis* was found, as inadequate prenatal care, preeclampsia, UTIs, low 1-minute and 5-minute APGAR scores, and low birthweight became more likely with increasing acculturation.

- Health care professionals should try to understand the constellations of birth complications that are most likely to occur at different stages in the acculturation process and design tailored interventions to serve this growing population.

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