



Effects of Acculturation Stress on Latinx Health

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Introduction

- ★ The immigrant paradox, the long-standing observation in medical and social science research that immigrants exhibit better health profiles than U.S. natives¹, is observed among immigrant Latinx adults.
- ★ However, evidence suggests that Latinx immigrant health deteriorates with greater duration of U.S. residence and across subsequent generations.¹ Latinx immigrants also engage in more health risk behaviors with increased duration in the U.S.¹, yet little research has been done on the potential effects of acculturation stress on immigrant health.
- ★ Acculturation stress, a type of sociocultural stress experienced by immigrants in response to challenges they encounter as they adapt to life in a new country,² has been associated with poor sleep health among Latinx adults, yet the association between this type of sociocultural stress and physical morbidity has not been tested.³
- ★ Acculturation stress is likely to result in changes in the responses that influence susceptibility to and course of disease.⁴

Objective

- ★ Our objectives were to examine the relationship between acculturation stress and physical morbidity among Latinx adults living in the U.S., and explore whether the relationship between acculturation stress and physical morbidity differs between U.S.-born and immigrant Latinx adults.
- ★ H1: Increasing acculturation stress will be associated with increasing physical morbidity among Latinx adults.
- ★ H2: Among Latinx immigrants, the association between acculturation stress and physical morbidity will be stronger than among Latinx U.S.-born adults.

Methods

- ★ **Design:** Latino Sleep & Health Study (LASH) examines the bidirectional relationship between sleep and self-regulation resources among Latinx adults living in the New York City area. Steps (Figure 1) include an eligibility screener, 60-90 minute baseline survey, an overnight sleep test, and a 40-day study using ecological momentary assessment. The baseline survey includes questions about psychosocial, behavioral, socioeconomic, and neighborhood factors postulated to affect sleep. The study will use data from the screening and baseline surveys.
- ★ **Sample:** LASH participants (n=188) are generally healthy Latinx men and women above the age of 18. Participants include English and Spanish speakers, and U.S.-born and immigrant Latinx adults. Participants vary in socioeconomic backgrounds. Enrollment began in 2016 and is ongoing.

- ★ **Independent Variables:** Acculturation stress will be measured in the baseline survey through the Hispanic Stress Inventory (HSI). Higher scores in the HSI indicate higher levels of acculturation stress.

- ★ **Dependent Variables:** Charlson Comorbidity Index⁵ (CCI) (Figure 2) is measured in the eligibility screener and measures health conditions and comorbid diseases to predict one-year mortality (life-expectancy). Higher scores indicate higher physical morbidity.

- ★ **Moderators:** Additionally, the relationship between acculturation stress and physical morbidity will be tested separately for U.S.-born and immigrant Latinx adults. Nativity status will be measured through one baseline survey question indicating if participants migrated to the U.S. or were born outside of U.S. mainland.



Figure 1: LASH Study Flow

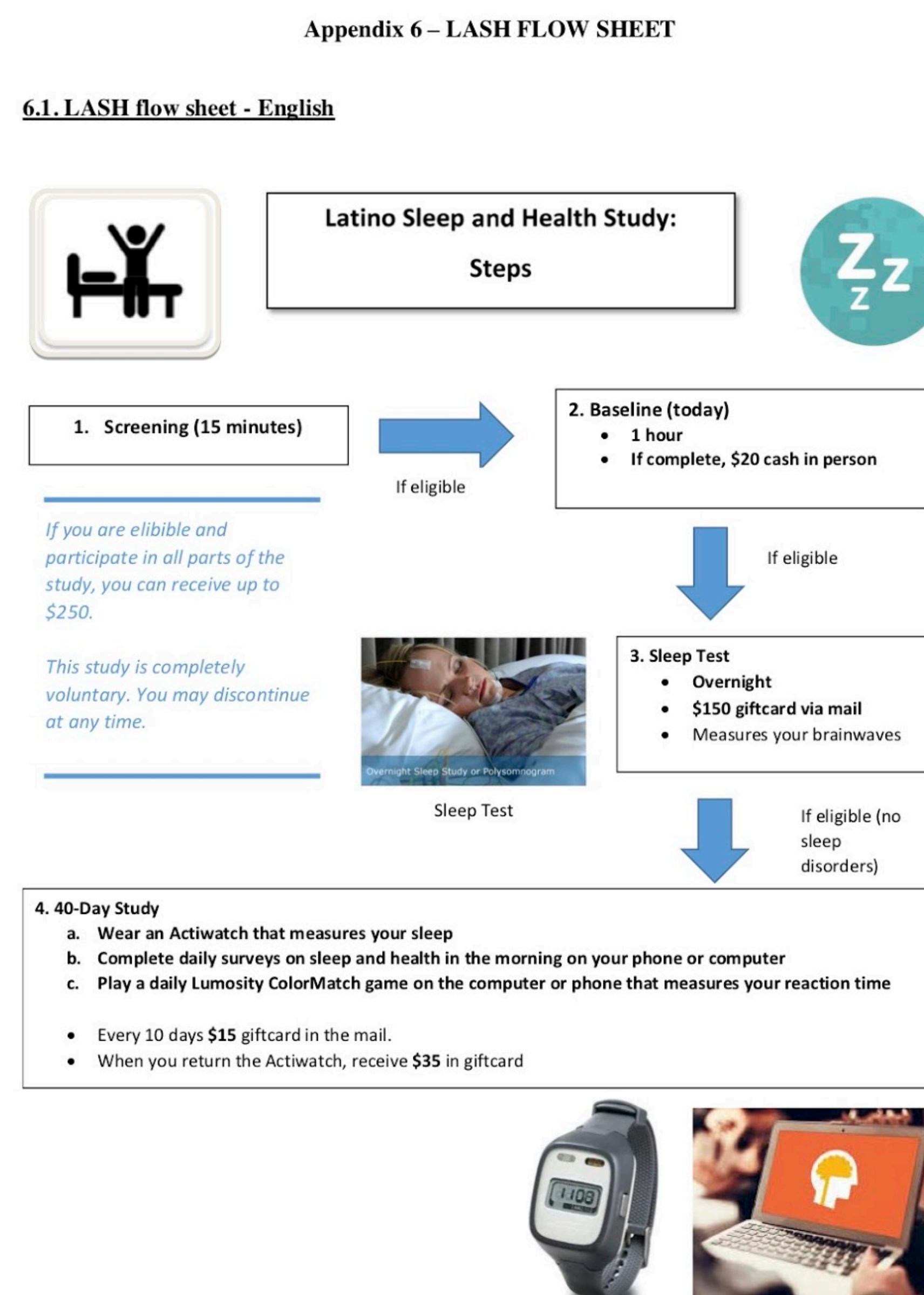


Figure 2: Charlson Comorbidity Index⁵

CHARLSON INDEX QUESTIONS Subject ID _____

	NO	YES	MAYBE
1. Do you have any of the following lung problems? [Asthma, chronic obstructive pulmonary disease, chronic bronchitis, and/or emphysema]	0	1	2
2. Do you have any problems with your kidney function? 2a. If YES, are they moderate/severe?	0	1	2
3. Do you have trouble with your liver? 3a. If YES, then classify how bad the liver disease is. Mild (patient has chronic hepatitis, or cirrhosis WITHOUT complications such as varices, portal hypertension, encephalopathy, GI bleeding) Moderate/Severe (patient has cirrhosis WITH complications such as varices, portal hypertension, encephalopathy, GI bleeding)	0	1	2
4. Do you have any of the following rheumatologic diseases? [Lupus (SLE), polymyositis, mixed connective tissue disease, polymyalgia rheumatica, and rheumatoid arthritis (RA)] Please note: osteoarthritis does not count as a rheumatologic disease.	0	1	2
5. Have you had trouble with stomach ulcers that required treatment? Please note: gastritis without stomach ulcers does not count here.	0	1	2
6. Do you have a history of a SOLID tumor (Benign or Cancer) treated in the past 5 years? [including tumors that affect the breast, lung, colon, prostate, brain, etc] 6a. If YES, then check any that apply: Benign Cancer 6b. If Cancer, did it spread to distant sites?	0	1	2
7. Do you have any of the following leukemias? [AML, CML, ALL, CLL, polycythemia vera]	0	1	2
8. Do you have any of the following lymphomas? [Hodgkins, lymphosarcoma, Waldenstrom's macroglobulinemia, myeloma, and other lymphomas]	0	1	2
9. Do you have a history of thyroid disease? If YES, then answer the following: 9a. Hyperthyroidism? 9b. Hypothyroidism?	0	1	2
10. Do you have a history of diabetes? If YES, then answer the following: 10a. Do you have any problems with your kidneys because of your diabetes? 10b. Do you have any problems with your eyes because of your diabetes? 10c. Do you have any loss of sensation in your feet or hands because of your diabetes?	0	1	2
11. Have any of your blood relatives (parents, siblings, children) had any of the following at age 55 or younger: 11a. Angina or chest pain? 11b. MI or heart attack? 11c. Stroke? 11d. Sudden cardiac death without obvious cause?	0	1	2

Projected Plan

- ★ Use participant data from LASH to examine the relationship between Hispanic Stress Inventory scores and Charlson Comorbidity Index scores to determine whether there is an association between increasing acculturation stress and increasing physical morbidity among a sample of U.S.-born and immigrant Latinx adults.
- ★ Determine the association between acculturation stress and physical morbidity among a sample of only U.S.-born Latinx adults.
- ★ Determine the association between acculturation stress and physical morbidity among a sample of only immigrant Latinx adults.
- ★ Compare association results of acculturation stress and physical morbidity between U.S.-born and immigrant Latinx adults.



References

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