Sociocultural Factors in Latinos’ Cardiometabolic Health

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Research Interests

• Sociocultural factors in the etiology and progression of chronic disease - cardiovascular disease, diabetes - among Latinos and other minority groups

• Develop and test culturally appropriate interventions to reduce chronic disease risk and improve health outcomes in underserved groups, especially Latinos
The Hispanic Community Health Study/Study of Latinos (HCHS/SOL) is an NIH multi-center population based longitudinal study of 16,415 Hispanic/Latino adults in four city areas (Chicago, Miami, New York, San Diego) (Talavera PI)

“SOL Sociocultural” is an ancillary study of 5,313 participants from all sites who underwent a separate sociocultural assessment (Gallo/Penedo MPIs)
HCHS/SOL Design

- Population-Based Probability Sample
  - Households in selected census blocks
- Sample Size 16,415 Hispanics/Latinos
  - > 4,000 at each of 4 Field Centers (San Diego, Miami, Chicago, Bronx, NY)
  - Cuban, Dominican, Central & South American, Puerto Rican, Mexican
- Ages: 18-74 years
  - 9,714 participants 45-74 years (59%)
- Longitudinal Study
  - Thorough baseline clinical exam, 2008-2011
  - Repeat exam in 2014-2017
SOL Sociocultural Aims/Design

• Aim: Examine associations of sociocultural and psychosocial factors with cardiovascular disease and metabolic syndrome prevalence and its component risk factors (i.e., obesity, diabetes, hypertension, dyslipidemia) among HCHS/SOL participants.

• 5312 participants across all four sites completed separate sociocultural interview within ~6 months after baseline.

• Comprehensive set of sociodemographic, psychosocial, sociocultural measures administered

• Linked with clinical data from baseline exam
Select findings to date

- Higher perceived social support and social integration relate to lower diabetes prevalence (total and newly recognized)

- Higher chronic stress burden relates to a higher prevalence of CVD (CHD, stroke), and to a higher prevalence of CVD risk factors including hypertension, diabetes and obesity.

- Greater family cohesion is associated with a lower likelihood of meeting criteria for the metabolic syndrome.

- Participants who value simpatía (social harmony, respect, conflict avoidance) have lower prevalence of hypertension.
Chronic Stress and CHD Prevalence (self-report or ECG)

- 0 chronic stressors: 2.1%
- 1 chronic stressor: 2.0%
- 2 chronic stressors: 7.0%
- 3+ chronic stressors: 6.5%
Chronic Stress and 30 Year CVD Risk (risk factor profile)

- 48.5% risk group
- 38.1% risk group
- 36.1% risk group
- 29.5% risk group

Low 30 Yr CVD Event Risk (% group)

Number of Chronic Stressors

Low Risk < 12%
Next Steps for SOL Sociocultural

• New proposal to examine associations of sociocultural factors with progression of cardiometabolic risk (2/14)

• Repeat assessment of key sociocultural risk and resource factors predictors

• Add new measures of migration, community, and healthcare processes with possible relevance to health
Other directions: SOL Neighborhoods

- **Aim 1**: Examine neighborhood (street network buffer) built and social environment using primary (audit- or technology based) and secondary (external databases) data collection

- **Aim 2**: Examine relationships between built and social environments and CVD risk across 6 years.

- **Aim 3**: Examine stress, social processes, and health behaviors (diet, sleep) as intermediate pathways connecting environments with CVD risk over time

Proposal in Progress
Thank you! - Questions?

- For more information:
  - http://www.cscc.unc.edu/hchs/