The San Antonio Heart and Mind Study: Past and Future Efforts to Study Successful Aging in South Texas

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**Background**

The San Antonio Heart Study (SAHS) and the San Antonio Longitudinal Study on Aging (SALSA) comprised one of the largest, most comprehensive efforts to study chronic disease and healthy aging in Mexican-American and European-American populations.

- The SAHS was established in 1979 and included 5,158 participants of European-Americans and Mexican Americans aged 25-64 years.
- From SAHS, 749 participants aged 65 years or older were recruited into SALSA to study the disablement process in older adults.
- SAHS/SALSA made key discoveries in diabetes, heart disease, lifestyle determinants, and healthy aging.
- The population core at the Biggs Institute will invite participants from the SAHS/SALSA cohort to study the link between the heart and the brain, and the influence of ethnic differences.

**Study design**

European-American and Mexican-American individuals were recruited from three neighborhoods in San Antonio:
1. Low-income barrio
2. Middle-income transitional
3. High-income suburban

**Information collected**

- Contextual Modifiers
- Psychosocial Modifiers
- Health Knowledge, Attitudes, and Behavior
- Medical Care Access and Utilization
- Lifestyle Modifiers
- Physiologic Risk Factors
- Diseases
- Impairments
- Functional Limitations
- Subclinical Disability
- Dependence
- Frailty and History of Falls

**SAHS Baseline**

- Cohort I: 1979-1982
- N=2,217
- Cohort II: 1984-1988
- N=2,941

**SAHS Follow-up**

- Cohort I: 1987-1992
- N=1,674
- Cohort II: 1992-1996
- N=2,009

**Key discoveries from SAHS/SALSA**

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<tr>
<th>Heart Disease</th>
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<td>SAHS found that Mexican-Americans, both women and men, have higher cardiovascular mortality than non-Hispanic whites (1).</td>
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<td>After adjustment for age, gender, obesity, body fat distribution, and educational attainment, Mexican-American hypertensive participants were in significantly poorer blood pressure control than non-Hispanic white hypertensive subjects (2).</td>
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<th>Lifestyle Factors</th>
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<td>Diet soda intake was associated with long-term increases in waist circumference in Mexican-American and European-Americans (3).</td>
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<td>Mexican-Americans were at greater risk of mortality than European-Americans. Socioeconomic differences largely explained this ethnic disparity (4).</td>
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<td>The Fostein Mini-Mental State Examination (MMSE) can be biased by age and education, but also by acculturation and structural assimilation of older Mexican-American adults into the broader American society (5).</td>
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<th>Diabetes</th>
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<td>Acculturation may exert a more pervasive influence on obesity and diabetes in Mexican-Americans than socioeconomic factors (6).</td>
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<th>The Hazuda algorithm</th>
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<td>Participant surname is a poor indicator of Mexican-American ethnicity. SAHS developed an algorithm including 9 items as a useful indicator for identifying Mexican-Americans (or other Hispanic) in epidemiologic research (7).</td>
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<td>Mexican-Americans who live to older ages are less likely than similarly aged European-Americans to become frail (8).</td>
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<td>Using the disablement process model developed by SALSA, it was found that ethnic differences in walking speed between older Hispanics and non-Hispanic could be fully explained by contextual and lifestyle/anthropometric factors (9).</td>
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**Future directions:**

- **We aim to bring back SAHS/SALSA participants to be part of a new study investigating successful brain aging in South Texas, the San Antonio Heart and Mind Study (SAHMS).**
  - Our pilot study to assess participation rate is underway.
  - Study design:
    - Clinical examination
    - Lifestyle questionnaire
    - Neuroimaging (MRI/PET)
    - Neuropsychological evaluation
    - Functional assessment
    - Follow-up for stroke, dementia and neurodegenerative diseases
    - Biorepository
    - Brain bank

**References**


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Successful brain aging