

The Complexity Around Stroke Awareness and Management in the Hispanic Community



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Introduction

- Stroke is the 5th leading cause of death in the United States (CDC, n.d.).
 - Each year approximately 795,000 people in the United States experience a stroke
 - Close to 185,000 of those are recurrent strokes
 - Every 40 seconds someone in the United States experiences a stroke
 - Stroke is the leading cause of serious long-term disability in the United States effecting more than four million Americans (Hinojosa et al., 2009).
 - Projected: by 2030 an additional 3.4 million US adults will have had stroke (20.5% increase in prevalence from 2012)
- The highest increase is projected to be in Hispanic men at 29%
- Fatal and non-fatal stroke is higher and health related quality of life is lower in racial and ethnic minorities
 - Stroke is a substantial burden on many minorities related to mortality, lost wages, and disability.
 - Hispanic patients were less likely to arrive by ambulance, trended toward a longer time of stroke onset to treatment decision and less likely to experience a favorable 90-day outcome.



Hispanic Americans

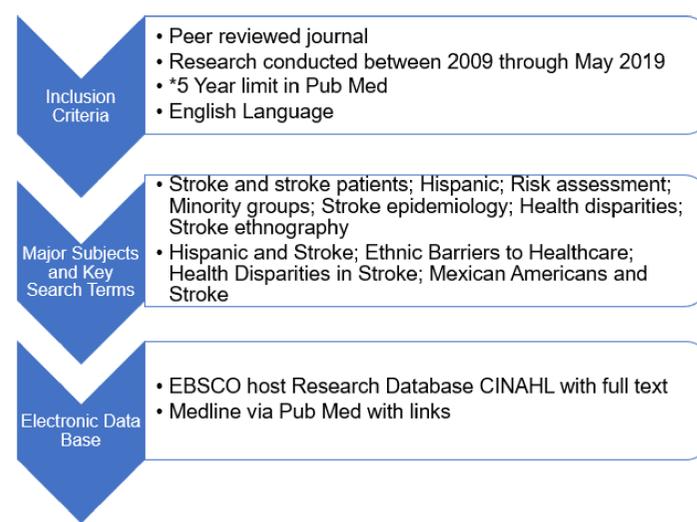
- Largest minority population in the United States
 - Mexican Americans largest subgroup at 63%
- 50.5 million Hispanic Americans in 2010 (16% of US population) which is expected to grow to 50% of US population by 2060
- Higher incidence of stroke and greater stroke mortality than non-Hispanic White Americans.
 - Especially in the young (under 45 years of age) and low socioeconomic tiers
- Twice as likely to experience a recurrent stroke with in 2 years of their initial stroke with greater residual physical impairment
- More risk factors (diabetes, hypercholesterolemia, obesity and physical activity)
- Worse access to care when compared to other minorities

Purpose of Review

To explore the health disparities and barriers to stroke recognition and early treatment of the Hispanic population.

1. What is the relationship between the socioeconomic status and stroke literacy within the Hispanic community to the delay in seeking time-sensitive treatment in health care?
2. How are language barriers within the Hispanic community associated with the delay in seeking time-sensitive treatment in health care?
3. What is the relationship between demographic characteristics (gender, age, ethnicity, etc.) and the delay in health care?
4. What are the social and economic determinants related to Hispanic health disparities?
5. Would the setting in which a research study is conducted impact the likeliness of subject participation in the Hispanic community?

Methods



Results

The systematic review of forty-seven articles were reviewed.

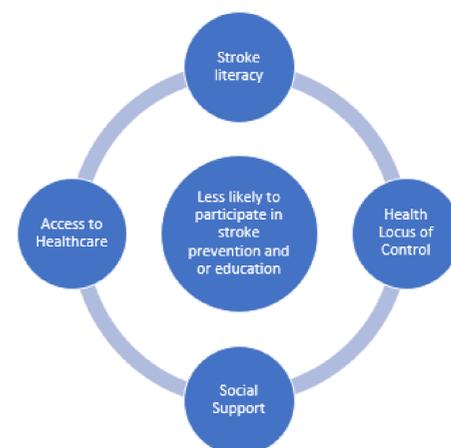
Study designs consisted on longitudinal utilizing survey methodology and qualitative studies utilizing ethnography with focus groups and interviews.

Root Cause in Delay

Hispanics presented less frequently to stroke centers for variety of reasons:

- Inability to access healthcare for financial or legal reasons
- Mistrust
- Misunderstanding of the healthcare system
- Poor communication
- Lower income
- Lower education
- Lower stroke literacy
- Less likely to recognize signs/symptoms of stroke
- Less likely to be eligible for tissue plasminogen activase (tPA)
- Less likely to use an ambulance service which all contributed to a longer onset of stroke symptom recognition to treatment time of 361 minutes on average

Themes impacting decision to seek medical care:



Strategies to Reduce Barriers:

Improve access to care

Target populations to heighten awareness

Establish an improved rapport by understanding culture, behaviors and decision making

- One method described in several studies to establish rapport is through the use of venues of trust such as churches
- Pastors believed that health and spirituality are linked and were interested in participating in health-related programs
- Churches are believed to be valuable and effective delivery channel for behavior change program, including stroke education

- Disease prevention programs targeting healthy behaviors have been evaluated in churches, including increased fruit and vegetable intake, adoption of physician activity, weight loss and smoking cessation and have been proven successful in many cases.
- This is thought to be particularly true for minority groups since they have a historically low participant rate in clinical trials.
- Oral narratives are a big component of religious communication with experiential storytelling a cornerstone of sermons and used to inspire the congregations.



- Approximately 90% of Hispanics identify with a particular religion and most Hispanics believe that religion is very important in their lives
- Faith-based approach to health behavior interventions for Hispanic communities' venue in several studies
- Since there is at least once church in almost every neighborhood the United States, churches have the ability and reach to play an important role in the dissemination and translation of stroke prevention programs in minority communities

Limitations

Many of the research studies conducted on minorities and stroke focus predominately on the African-American race with limited data regarding Hispanic ethnicity and its unique set of barriers.

Hypothesis as to why the lack of participation in survey methods previously conducted cite a possible lack of understanding of the purpose of the study, fear of relaying information that will affect their legal status and lack of follow-up do to lack of phone for additional future calls during longitudinal studies.

Conclusions

The incidence of stroke in the Hispanic population occurs at a younger age with higher disability and a prolonged survival rate.

Worse neurological outcome, prolonged post stroke survival and increased post stroke disability demands attention to the future public health burden of stroke in the growing and aging Hispanic population.

Future studies required to determine the educational message that needs to be delivered, how the message should be delivered and to whom the message should be directed.

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