# Stroke Awareness: A Community Approach

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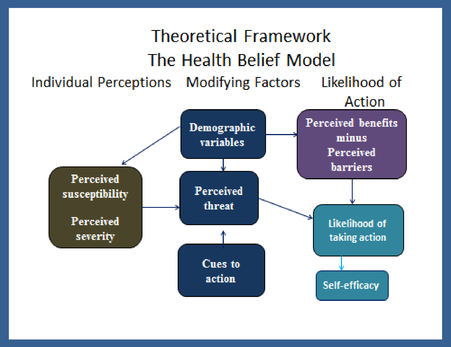
## INTRODUCTION

- Effective stroke disease educational programs are needed in the community, as stroke remains a leading cause of mortality in the United States (Roger et al., 2012).
- The literature identifies perceived susceptibility to illness as a strong indicator for a health action (Sullivan & Katajamaki, 2009).
- However, many clients fail to recognize their vulnerability to illness and do not take preventive action (Winham & Jones, 2011).

## PURPOSE

- To teach a class on stroke awareness to a group of parishioners from a small community church and explore their stroke beliefs, knowledge of stroke factors, and intention to take a health action using the Health Belief Model as the theoretical framework.

## THEORETICAL FRAMEWORK

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## METHODOLOGY

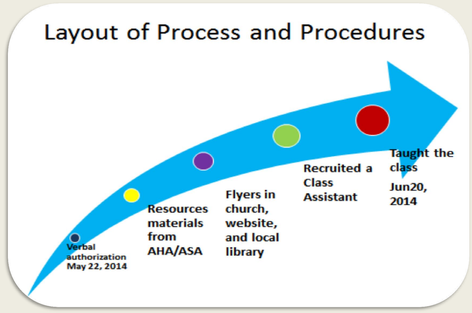
**Design**:
- A quantitative descriptive design
- Survey method for data collection

**Sample selection and attributes:**
- Anticipated adults: ages 55 to 75 years old
- Actual age distribution of study: 15 to 80 years old
- Anticipated class size: n=16
- Class attendees: n=23
- Final sample selection: n=22
- Target population: 210 church members
- Able to read, write, and speak English
- All participants signed-up for the class on a volunteer basis

**Setting:**
- Natural setting, a community church in Orange County, California

### *METHODS AND MATERIALS*

The study instruments included:
- A class flyer advertising the class was distributed two weeks prior to the event (Figure 1.).
- Five instruments for data collection were designed by the researcher: a demographic and health questionnaire, a pre and post-test, and a *Commit to Action* questionnaire.
- A 60 minute educational session on stroke awareness was designed and delivered using various teaching methodologies.
- Permission to teach the class was given by the leader of the church.
- A class assistant was recruited and instructed on helping with distributing and collecting surveys.
- All data were coded and entered into SPSS statistical software program for storage and analysis.



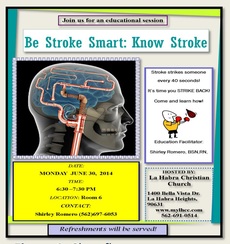




**Figure 1.** Class flyer

## RESULTS

- The *M*= 54.05 (*SD* = 18.95), Median= 56, and the Mode= 41
- 60% of responses had statistical significance (*p≤0.05*) (See Table 3).
- Correlations were noted among pre and post-test scores for knowledge of stroke risk factors (Questions(Q)1-5, Table 3), knowledge of stroke symptoms (Q.6), and perceived benefits of taking action (Q.10, Q.13, Q.14, Table 3).
- 86% of responses had a positive change in mean scores from pre to post-test. (See Table 3). Question 11 and 12 that asked, "If symptoms go away then I don't have to call 911 and "I feel too embarrassed to exercise" had a high-to-low mean as it was the expectation that the participants would disagree with the statement.
- Intention to increase physical activity, eat more vegetables, and keep an annual physical exam were most frequently identified as a target for change (See Table 5).
- Analysis of the raw data showed that those between the ages of 15 and 19 years old identified the need to increase physical activity as a target for change.

### *DEMOGRAPHICS*

| Demographics | All participants n=22 |
|---|---|
| % Males | 55% |
| % Females | 64% |
| High School | 41% |
| HS and Trade | 14% |
| Less than HS | 14% |
| Trade/Vocational | 14% |
| Baccalaureate | 14% |
| Master's | 9% |

**Table 1.** Demographics: age and education

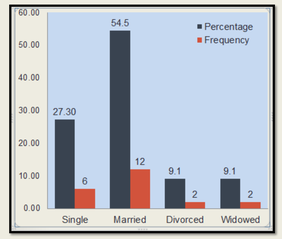



**Table 2.** Demographics: marital status *n=22*

### Pre and Post-test Scores


| | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pre-Mean | 3.81 | 3.73 | 3.55 | 3.27 | 3.86 | 4.59 | 4.86 | 4.59 | 4.86 | 2.5 | 1.85 | 2.18 | 4.09 | 3.91 | 2.86 |
| Post-Mean | 4.32 | 4.5 | 4.73 | 4.27 | 4.68 | 5 | 5 | 4.77 | 5 | 1.41 | 1.55 | 2.05 | 4.59 | 4.77 | 2.91 |
| Paired t-test sig | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | | | | 0.01 | | | 0.03 | 0.01 | |

**Table 3.** Pre and post-test questionnaire *p≤ 0.05*

### Risk Factors

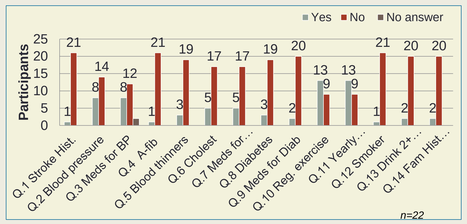



**Table 4.** Health Questionnaire

## DISCUSSION

- There was a great variation in the age distribution of this study, thus, the sample was unlikely homogenous.
- Self-disclosed risk factors for stroke in this study are consistent with literature findings among the American population with regards to hypertension, hyperlipidemia, and diabetes (Rogers et al., 2012).
- There is evidence that there was positive change in the participant's perceptions to stroke susceptibility, stroke beliefs, and intention to change after the education session.
- The learner's goals for identifying stroke as a medical emergency and calling 911 was 100% met (Q.7 and Q9, Table 3).
- The results of this study supports the benefit of implementing health education programs in community church settings.

### Intention for Health Action

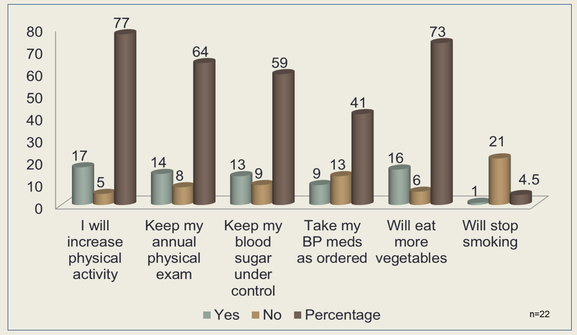



**Table 5.** Commit to Action questionnaire

## CONCLUSIONS AND IMPLICATION FOR NURSING

- Findings suggest that preventive health interventions for stroke can positively change knowledge of stroke disease in this study population.
- This class offering helped participants clarify misconceptions related to stroke pathophysiology, incidence, symptoms, and treatment that were not well understood prior to the class.
- Younger populations such as teenagers, have a significant opportunity for lifestyle changes and should be included in educational interventions that typically target adults.
- Faith-based organizations can be effective in promoting health education in this community.
- Nursing students, frontline nurses, and nursing faculty have a significant role in transforming the health of the community by impacting health promotion and prevention methods applicable throughout the healthcare landscape.
- Further studies are needed to include a larger sample size and a session in Spanish, as the study setting was in a predominantly Hispanic neighborhood.