Stroke Education Program at a Midwest Regional Senior Center

Melanie Glander BSN RN; Joanne Miller PhD APRN/GNP-BC

Background

Stroke is the third leading cause of death in Chicago
• Age-adjusted stroke mortality rate in Chicago 4.4 per 100,000, compared to 3.6 per 100,000 in the US
• Two-thirds of all strokes occur in people age 65 years or older
80% of strokes are preventable
• Many individuals are unaware of their stroke risk factors
• More than one third of stroke patients do not call 911 when stroke symptoms are recognized

Stroke Knowledge and Preparedness
• African Americans and Hispanics do not recognize stroke warning signs as readily as Whites and are less likely to call 911
• Older adults and those with limited health literacy have lower stroke awareness.
• Delays in recognition/treatment = increased mortality rates

Purpose
To improve community-dwelling older adults’ stroke knowledge through a stroke education program at Central West Regional Senior Center

Objectives
1) Eighty percent of the older adults will meet or partially meet their goals to improve their risk factors and sustain or have an increase in their TSRQ results compared to baseline by the fourth session, with 70% maintaining or improving at three months after program completion.
2) Eighty percent of the older adults who attend Stroke Warriors in October 2018 will get 85% or higher correct responses on the SPQ at the end of the fourth education session, and 75% or higher three months after program completion.
3) Eighty-five percent of the older adults who attend Stroke Warriors in October 2018 will sustain or have an increase in stroke self-efficacy, attitude, and subjective norms compared to baseline assessment results following the fourth session and three months after program completion.

Methods

Setting:
• Central West Regional Senior Center
Participants:
• 15 older adults, with an average age of 71.33 years; 13 African Americans, 2 Hispanic

Design and Dose:
• Program administered in 4 weekly sessions
• Data collected at pre, post, and 3 month follow-up

Stroke Warriors Program Components:
• Four PowerPoint Presentations: Defining stroke, stroke preparedness, risk factors, and available treatments
• Program activities: Stroke role-play/scenarios, knowledge check games, reflection discussions, and weekly healthy eating and exercise goal setting

Measures:
• The Treatment Self-Regulation Questionnaire (TSRQ) assessed behavioral change
• The Stroke Self-Efficacy, Attitude, and Subjective Norms Assessment and the Stroke Preparedness Questionnaire (SPQ) assessed stroke knowledge
• Weekly healthy eating and exercise goals were rated as (1) met, (2) partially met, (3) did not meet
• Stroke Warriors Acceptability Measure assessed the older adults’ satisfaction with the program

Results

Stroke Self-Efficacy, Attitude, and Subjective Norms Survey

<table>
<thead>
<tr>
<th>Norms</th>
<th>Pre</th>
<th>Post</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Efficacy</td>
<td>5.0</td>
<td>5.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Attitude</td>
<td>5.0</td>
<td>5.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Subjective Norms</td>
<td>5.0</td>
<td>5.0</td>
<td>4.6</td>
</tr>
</tbody>
</table>

From baseline to post-intervention:
• Exercise behavior increased 11%
• Healthy eating behavior increased 18%
• These improvements were not maintained

Weekly Goal Results

Week 1: 70%
Week 2: 75%
Week 3: 80%
Week 4: 85%

From baseline to post-intervention:
• There was a statistically significant increase in exercise and healthy eating behaviors from pre to post
• Average scores increased 51% from 56.3 to 85 pre to post
• Average scores increased 40% from 56.3 to 78.8 pre to follow-up

Stroke Warriors Acceptability Measure
• 100% of older adults met or partially met their weekly goals by the end of the fourth week

Conclusion
• This project reinforces evidence that an education program tailored to the diverse older adult population is beneficial and promotes the key role of APRNs in providing primary prevention.
• Participants showed an overall increase in stroke preparedness and behavioral change after the 4th session, but the behavioral change (TSRQ) was not maintained at 3 months post program.
• Future stroke education programs could benefit from adding periodic follow-up review sessions to ensure stroke preparedness and behavioral change is maintained.