EFFECTS OF A CONTINUING CARE MODEL FOR OLDER ADULTS WITH STROKE IN CANTHO CITY, VIETNAM

Tran Thi Hanh¹, Kwanjai Amnatsatsue², Patcharaporn Kerdmongkol², Ratchaneewan Ross³, Le Ngoc Cua⁴

1-Faculty of Public Health, Mahidol University and Cantho Medical College, Cantho City, Vietnam

2- Department of Public Health Nursing, Faculty of Public Health, Mahidol University

3- School of Nursing, UNC Greensboro

4-Mekong University, Vietnam
Situation of stroke and its management

**Worldwide:**

- Ranked as the 2\textsuperscript{nd} leading cause of death
- Increasing stroke death
- A higher proportion of aging people in stroke victims
- 50\% of stroke victims required ADL assistance
- Rarely did they returned to paid employment

**Asia**

- Stroke ranked as the 1\textsuperscript{st} leading cause of death
- Aging group is higher than that in the world

**Vietnam**

- The highest mortality rate of stroke among Asia
- Evidences on rehabilitation program for stroke survivors have rarely been found out.
- The highest prevalence of stroke is in Can Tho city
Situation of stroke and its management (cont.)

<table>
<thead>
<tr>
<th>Cause</th>
<th>% of death</th>
<th>Change in rank 2000-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>21.70</td>
<td>✓</td>
</tr>
<tr>
<td>Ischemic heart disease</td>
<td>7.00</td>
<td>▲</td>
</tr>
<tr>
<td>COPD</td>
<td>4.90</td>
<td>▲</td>
</tr>
<tr>
<td>Lower respiratory infections</td>
<td>4.80</td>
<td>▼</td>
</tr>
<tr>
<td>Road injury</td>
<td>4.10</td>
<td>▲</td>
</tr>
<tr>
<td>Liver cancer</td>
<td>3.90</td>
<td>△</td>
</tr>
<tr>
<td>Trachea bronchus lung cancers</td>
<td>3.70</td>
<td>△</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>3.30</td>
<td>▼</td>
</tr>
<tr>
<td>Cirrhosis of the liver</td>
<td>2.70</td>
<td>▼</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>2.60</td>
<td>▲</td>
</tr>
</tbody>
</table>

- **Increased** ▲
- **Decreased** ▼
- **No change** ◆

Chart source: Vietnam: WHO Statistical profile 2015
Prevalence of stroke in Vietnam in 2014

Figure 1. Stroke prevalence by province/city Vietnam 2013-2014
Gaps of the study

1. Limitation of Post-stroke care management in Vietnam
   – Inadequate facilities;
   – Insufficient competencies of health care providers;
   – Inadequate process in management
   – Overload of unplanned hospitalization was observed often

2. Insufficient care for older adults with stroke
   – Limited continuing care after discharge
   – Limited evidences on monitoring by health care providers
   – Family caregivers are in need of serving better care in term of consulting and supporting.
Researches related to stroke outcomes and interventions

1. **Quality of Life, improved after:**
   - Supportive educative learning program for family caregivers
   - A supporting program for stroke self-management
   - Providing stroke family coping their new situation

2. **Functional outcome, improved after:**
   - Rehabilitation program
   - Follow-up service after stroke
   - Upper extremity-specific therapy over 4 to 6 weeks

3. **Complications, improved after:**
   - Pressure ulcers: repositioning of immobile patients

4. **Better outcome, after:**
   - Appropriate supporting program
   - Counselling program
   - Professional advice and feedback
   - A caregiver-oriented intervention as discharge planning program
Theories and models related to stroke management

1. Continuing care: 2 stages
   - Primary/basic care
   - Special care

2. Chronic care model: 6 components

3. Discharge planning:
   “to ensure a timely and smooth transition to the most appropriate type of setting for post-hospital or rehabilitation care”
Research objectives

General objective:
To develop a continuing care model for the older adults with stroke in Can Tho City, Vietnam

Specific objectives
1) To determine the components of the continuing care model for the older adults with stroke in Can Tho City
2) To evaluate effects of the continuing care model for the older adults with stroke in Can Tho City
Conceptual framework

Independent variables

1. Health facility for stroke
2. Comprehensive assessment
3. Delivery support
4. Self-management support
5. Care management plan
6. Rehabilitation care

Dependent variables

Continuing care model

Model’s effects

Stroke outcomes
1) Quality of Life
2) Functional outcome
3) Self-care agency
4) Complications
Operation definition

- **Older adult with stroke:**
  - Referred to those who were aged 60 and over with stroke diagnosed as either ischemic stroke or haemorrhagic stroke

- **Continuing Care Model:**
  - Any care / services required for the older adults with stroke during the 72h after hospital admission and 3 months after discharge to their homes, aiming to ensure better stroke outcomes

- **Effects of the Continuing Care Model**
  - Referred to the significant changes of stroke outcomes between the comparison group and the intervention group before and after the 3-month implementation of the Continuing Care Model
Methodology

Design – setting

Research design:
Mixed method
research design
# Study Population & subjects

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 2</strong></td>
<td>Model development</td>
<td></td>
</tr>
<tr>
<td>19 Health professional and stakeholders</td>
<td>Working in stroke care at least 6 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agreeing to participate in the study</td>
<td></td>
</tr>
<tr>
<td><strong>Phase 3-4</strong></td>
<td>Model implementation and Model evaluation</td>
<td></td>
</tr>
<tr>
<td>77 older adults with stroke:</td>
<td>Aged 60 years and over</td>
<td>Admitted at other hospitals</td>
</tr>
<tr>
<td></td>
<td>Living in Can Tho city</td>
<td>Not willing to participate</td>
</tr>
<tr>
<td></td>
<td>Could communicate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Having Glasgow score &gt;8</td>
<td></td>
</tr>
<tr>
<td>77 family caregivers</td>
<td>Being a family caregiver of stroke patients.</td>
<td>Not willing to join the 3 month project</td>
</tr>
<tr>
<td></td>
<td>Aged 18 year and over</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Being able to communicate independently</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agreeing to participate in the study</td>
<td></td>
</tr>
</tbody>
</table>
Flow of research subjects selection

Randomly choosing 3 of 8 district hospitals

Total 77

Before Intervention

Comparison group: 46
OMon and Thot Not Hospital

Intervention group: 31
Thoi Lai Hospital

After Intervention

Died: 13
Lost tract: 1
Alive: 32

Died: 3
Lost tract: 5
Alive: 23
Preparation phase

1. Building stroke team’s capacity
   – The researcher participated in a nursing stroke care program
   – 3 day TOT training workshop

2. Establishment of Patient-care team:
   – Advisory experts
   – The coordinator group

3. Development of intervention tools
   – Discharge planning
   – Materials for training caregivers
   – Basic tools for practicing physical therapies

4. Mobilizing community participation
   – Thoi Lai District Elderly Association, Red Cross Association, Charity group
Figure 3 - 4 e. Local experts gave recommendations

Figure 3 - 4 f. The coordinator team

Figure 3 - 4 g. Discussion for process of Discharge Plan in Emergency Department of Thoi Lai District Hospital

Figure 3 - 4 h. Meeting Thoi Lai District Hospital’s Administration Team for process of Discharge Plan
Figure 3 - 4 i. Training workshop to standardize contents on teaching

Figure 3 - 4 j. A rehearsal case

Figure 3 - 4 l. Mobilizing participation from Thoi Lai District’s Red Cross Association

Figure 3 - 4 m. Mobilizing participation from Thoi Lai District’s Elderly Association
Research procedure

Phase 1 – Situation analysis
Three meetings for focused group were employed to explore current PSCM in hospitals, after hospital discharge to home/community and SS-FCG’s needs in post-stroke care. Collecting secondary data of stroke from Can Tho City Department for Health Data analysis.

Phase 2 – Model Development
Conducting a community participatory approach workshop. Verify the draft model with representatives of those who were experienced stroke care.

Phase 3 – Model Implementation
The comparison group: Providing care as usual to stroke patients. The intervention group: received a 3-month implementation (Figure 6).

Phase 4 – Model Evaluation
Day 3 and Week 12: Collecting data at the 12th week.
Research Instruments

1. **Screening Tools: Glasgow Coma Scale**
2. **Intervention tools**
   - Discharge plan
   - Materials for training caregivers (Caregivers’ Handbook)
   - Basic tools for practicing physical therapies
   - Other supporting tools for intervention
3. **Instrument for data collection: A 5 part questionnaire**
   - Part 1: Personal Information and Stroke situation
   - Part 2: Quality of Life
   - Part 3: Functional Outcomes
   - Part 4: Complications from stroke
   - Part 5: Self-care Agency
Research project “Development of A Continuing Care Model for Older Adults with Stroke in Cantho City, Vietnam”

CAREGIVERS’ HANDBOOK

Tran Thi Hanh* et al.
*The Office for Research Management and International Relations, Cantho Medical College

I. MAIN INFORMATION

1) To prevent complications
2) To rehabilitate
3) To reintegrate

Goals for post-stroke care

III. REINTEGRATION

Daily activity participation

Some hints

- Often conversing with stroke patient
- Encouraging patient to participate daily conformable activities

Introduction

Who use this handbook?
- The nurses in charge of health education for family caregivers whose stroke survivors (also known as cere-brovascular accident)
- The family caregivers taking care of stroke survivors
- The other members in stroke survivor’s family; their neighbors can also refer.

Where should this handbook be applied?
- The topics in this handbook are presented based on simple circumstances in order to be practiced by the family caregivers at their homes.
- They can be combined to apply with other means if available at home

How to use this handbook:
- Firstly reading the topic that needs to be clarified at the next page
- Finding to read the topic with its page listed
<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement</th>
<th>Descriptive</th>
<th>Range of score</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>QoL* (SS-QoL-12)</td>
<td>12-item Stroke-Specific Quality of Life Scale</td>
<td>6 physical subscale. 1= Couldn’t do it at all; 5= No trouble at all 6 psychosocial subscale 1= Strongly agree; 5= Strongly disagree</td>
<td>0-60</td>
<td>.714</td>
</tr>
<tr>
<td>Self-care* agency (ASAS-R)</td>
<td>The Appraisal of Self Care Agency Scale Revised</td>
<td>- 24 Liker-type items - 1 “Totally Disagree” to 5 “Totally Agree”</td>
<td>0-120</td>
<td>.868</td>
</tr>
<tr>
<td>Functional Outcome** (NIHSS)</td>
<td>(The National Institutes of Health Stroke Scale)</td>
<td>15-item impairment scale for stroke severity. 0: None 4: most severity</td>
<td>0-42</td>
<td>.913</td>
</tr>
</tbody>
</table>

* The higher the better  ** The higher the worse

Complications (Rome III Criteria)
Data analysis

- SPSS version 20 was used to analyse data.
- Wilcoxon Signed-Rank Test significant at p<0.05 was used to compare model’s effects within each group.
- Mann-Whitney Test is statistically significant at p<0.05 was used to compare model’s effects between two groups.
Data collection

Experimental group (EG)

Comparison group (CG)

- $O_1$: Refers to data collection before implementing interventions in EG
- $X$: Refers to implementing interventions
- $O_2$: Refers to data collection after implementing interventions 12 weeks in EG
- $O_3$: Refers to collection for baseline data in CG
- $O_4$: Refers to data collection after 12 weeks in CG
Figure 3 - 4 q. Community Participatory Workshop

G2a. Primary care training:
Discussion Outcomes

- It should be train early before 72h to prevent complication early
- All primary care skills can be trained, except hair wash at bed.
- It can be taught for group of patients

G8. Telephone counseling

- Should be done by the nurses who take care patient in hospital
- Should be done 2 directions: Periodic from hospital and when necessary from FCGs
G2b. Specialized care training: Discussion Outcomes

- It should be taught in Traditional Dep. Or Medicine Dep.
- Apply traditional medicine approach
- Should be taught every week
- Could be train in meeting room or patient bed

G3. Community management: Discussion Outcomes

- Patients should be registered in commune health posts after hospital discharge
- Home health visiting should be performed by nurse and other health professionals in hospital

G5. Home aid: Discussion Outcomes

- Neighbor's Visiting, sharing and encouraging
- Group of neighbors can be formed to aid housework

G6. Community support

- Local Red Cross Association: Could support referral car for patients free of charge to re-examination for health in hospitals
- Community Health volunteer could mobilize sponsors or charity agents to help patients
Figure 3 - 4 i. Training workshop to standardize contents on teaching

Figure 3 - 4 j. A rehearsal case

Figure 3 - 4 k. Basic tools for practicing physical therapies
Improvements for stroke outcomes

Continuing Care Model’s component

1. Continuing care management
2. Family Caregiver’s training
3. Family caregiver’s support
4. Resource allocation
   - Elderly Association
   - Red Cross Association
   - Charity Group
5. Monitoring for stroke patient care
6. ADL and rehabilitation care
7. Stroke patient’s family reintegration

Doing discharge planning

Registering after discharge
Phase 3 - Model Implementation

1. Continuing care management
   - Availability of ST net-work

2. Family caregiver’s training
   - Training PSC for FCGs
   - Training for patient’s passive and active physical therapies
   - FCGs participate in PSC and practice SP’s physical exercises
   - Consulting to prepare for condition of PSC at home
   - Announcing SP’s information

3. Family caregiver’s Support
   - Monitoring and consulting FCG’s practice on post stroke care
   - FCGs practice on PSC and SP’s physical exercises with monitoring

4. Resource allocation
   - Screening
   - SP practice physical exercise actively or passively
   - SPs self care with supporting

5. Monitoring for stroke patient care
   - Nurse manage by phone monthly
   - Evaluating SP’s stroke outcome in week 12

6. ADL and rehabilitation care
   - FCGs self-manage PSC and help SP’s physical exercises
   - SPs practices physical exercises with or without supporting
   - SPs participate on daily activities

7. Family reintegration
   - Nurses consults by phone when FCGs need
   - Collaborate to CHSs on dealing with SP’s health problems

<table>
<thead>
<tr>
<th>Acute stage (First 72 hours)</th>
<th>Hospital Care (Day 3 – Discharge Day)</th>
<th>Care after discharge (Discharge – Week 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of ST net-work</td>
<td>Planning discharge</td>
<td>CHPs manage SPs by discharge planning</td>
</tr>
<tr>
<td>Consults for priority issues</td>
<td>Performing discharge order</td>
<td></td>
</tr>
<tr>
<td>Training PSC for FCGs</td>
<td>Training for patient’s passive and active physical therapies</td>
<td></td>
</tr>
<tr>
<td>FCGs participate in PSC and practice SP’s physical exercises</td>
<td>Consulting to prepare for condition of PSC at home</td>
<td>Nurses consults by phone when FCGs need</td>
</tr>
<tr>
<td>Consulting to prepare for condition of PSC at home</td>
<td>Announcing SP’s information</td>
<td>Collaborate to CHSs on dealing with SP’s health problems</td>
</tr>
<tr>
<td>Screening</td>
<td>Monitoring and consulting FCG’s practice on post stroke care</td>
<td>Nurse manage by phone monthly</td>
</tr>
<tr>
<td>FCGs practice on PSC and SP’s physical exercises with monitoring</td>
<td>Evaluating SP’s stroke outcome in week 12</td>
<td>FCGs self-manage PSC and help SP’s physical exercises</td>
</tr>
<tr>
<td>SP practice physical exercise actively or passively</td>
<td></td>
<td>SPs practices physical exercises with or without supporting</td>
</tr>
<tr>
<td>SPs self care with supporting</td>
<td></td>
<td>SPs participate on daily activities</td>
</tr>
</tbody>
</table>
Within the 1st week since hospitalized:

5) ST trained post-stroke care at bed/preparing to leave bed/walking

6) FCG practiced under stroke team’s supervising

7) ST consulted the particular problems related to post-stroke care

8) ST consulted to prepare new circumstances for patients at home
The 1st stage: Hospital care

On the 3rd day since hospitalized

1) Assessing functional outcome
2) ST discussed with FCG to prepare Care Plan / Discharge Plan
3) Training post-stroke care at bed
4) Consulting the priority problems in the current health situation
9) FCG kept on practicing post-stroke care under ST’s supervising

10) ST kept on counseling and supporting particular problems relating care for stroke

11) ST trained how to early detect abnormal signs

12) ST ended the mode
...how to prevent respiratory infections
...how to interpret BP at Electronic monitor
Look and do as me
Following up after 3 months
Following up after 3 months
# Result: Components of Continuing Care Model

<table>
<thead>
<tr>
<th>Our study</th>
<th>[1, 2, 3, 7]</th>
<th>[4, 5, 6, 8]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Continuing care management</td>
<td>Primary care and specialty care management</td>
</tr>
<tr>
<td>2</td>
<td>Family caregiver’s training</td>
<td>Alternative service delivery</td>
</tr>
<tr>
<td>3</td>
<td>Family caregiver’s support</td>
<td>Psychiatric treatment</td>
</tr>
<tr>
<td>4</td>
<td>Resource allocation</td>
<td>Regular contact</td>
</tr>
<tr>
<td>5</td>
<td>Monitoring for stroke patient care</td>
<td>Monitoring,</td>
</tr>
<tr>
<td>6</td>
<td>ADL and rehabilitation care</td>
<td>Special care</td>
</tr>
<tr>
<td>7</td>
<td>Family reintegration</td>
<td>Regular primary care</td>
</tr>
</tbody>
</table>
Improvements for stroke outcomes

Continuing Care Model’s component

1. Continuing care management
2. Family Caregiver’s training
3. Family caregiver’s support
4. Resource allocation
   - Elderly Association
   - Red Cross Association
   - Charity Group
5. Monitoring for stroke patient care
6. ADL and rehabilitation care
7. Stroke patient’s family reintegration

Registering after discharge

District Health Center

Commune Health Station

Doing discharge planning
# Results: Subject’s characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Com. Group (n=32)</th>
<th>Int. Group (n=23)</th>
<th>Df.</th>
<th>$\chi^2$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>11 (34.38)</td>
<td>10 (43.48)</td>
<td>1</td>
<td>0.470</td>
<td>0.493</td>
</tr>
<tr>
<td>Female</td>
<td>21 (65.63)</td>
<td>13 (56.52)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60 - 69</td>
<td>11 (34.38)</td>
<td>6 (26.09)</td>
<td>2</td>
<td>0.591</td>
<td>0.744</td>
</tr>
<tr>
<td>70 - 79</td>
<td>10 (31.25)</td>
<td>7 (30.43)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80 and over</td>
<td>11 (34.38)</td>
<td>10 (43.48)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>28 (87.50)</td>
<td>12 (52.17)</td>
<td>2</td>
<td>8.419</td>
<td>0.006*</td>
</tr>
<tr>
<td>Others</td>
<td>4 (12.50)</td>
<td>11 (47.83)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than elementary</td>
<td>29 (90.63)</td>
<td>11 (47.83)</td>
<td>1</td>
<td>12.358</td>
<td>0.0007*</td>
</tr>
<tr>
<td>Elementary and over</td>
<td>3 (9.38)</td>
<td>12 (52.17)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>25 (78.13)</td>
<td>2 (8.70)</td>
<td>1</td>
<td>25.811</td>
<td>&lt;0.0001*</td>
</tr>
<tr>
<td>None or others</td>
<td>7 (21.88)</td>
<td>21 (91.30)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Results: Model effects on Quality of Life

### Table: Model’s effects in comparing Quality of Life within group

<table>
<thead>
<tr>
<th>Quality of Life</th>
<th>N</th>
<th>N for test</th>
<th>Wilcoxon Statistic</th>
<th>Estimated Median</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison group</td>
<td>32</td>
<td>30</td>
<td>0.00</td>
<td>-6.00</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Intervention group</td>
<td>23</td>
<td>22</td>
<td>45.5</td>
<td>-7.00</td>
<td>0.009^a</td>
</tr>
</tbody>
</table>

^a: Wilcoxon Signed-Rank Test is very significant at p<0.05

### Table: Model’s effects in comparing Quality of Life between group

<table>
<thead>
<tr>
<th>Quality of Life</th>
<th>Median</th>
<th>Mean Rank</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>com. group</td>
<td>int. group</td>
</tr>
<tr>
<td>Before model intervention</td>
<td>32</td>
<td>25.23</td>
<td>31.85</td>
</tr>
<tr>
<td>After model intervention</td>
<td>38</td>
<td><strong>24.78</strong></td>
<td><strong>32.48</strong></td>
</tr>
</tbody>
</table>

^a: Mann-Whitney Test is statistically significant at p<0.05
### Results: Model effects on Functional outcome

#### Table 4 - 5 Model’s effects in comparing stroke outcomes within group

<table>
<thead>
<tr>
<th>Functional outcome</th>
<th>N</th>
<th>N for test</th>
<th>Wilcoxon Statistic</th>
<th>Estimated Median</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison group</td>
<td>32</td>
<td>32</td>
<td>146.5</td>
<td>-2</td>
<td>0.029(^a)</td>
</tr>
<tr>
<td>Intervention group</td>
<td>23</td>
<td>21</td>
<td>176.0</td>
<td>2.5</td>
<td>0.037(^a)</td>
</tr>
</tbody>
</table>

\(^a\) : Wilcoxon Signed-Rank Test is very significant at p<0.05

#### Table 4 - 6 Model’s effects in comparing stroke outcomes between group

<table>
<thead>
<tr>
<th>Functional outcome</th>
<th>Median</th>
<th>Mean Rank com. group</th>
<th>Mean Rank int. group</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before model intervention</td>
<td>2</td>
<td>22.81</td>
<td>35.22</td>
<td>0.004(^a)</td>
</tr>
<tr>
<td>After model intervention</td>
<td>4</td>
<td>27.69</td>
<td>28.43</td>
<td>0.835</td>
</tr>
</tbody>
</table>

\(^a\) : Mann-Whitney Test is statistically significant at p<0.05
Results: Model effect on Self-care agency

Table - Model’s effects in comparing stroke outcomes within group

<table>
<thead>
<tr>
<th>Self-care Agency</th>
<th>N</th>
<th>N for test</th>
<th>Wilcoxon Statistic</th>
<th>Estimated Median</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison group</td>
<td>32</td>
<td>8</td>
<td>19.0</td>
<td>0.00</td>
<td>0.944</td>
</tr>
<tr>
<td>Intervention group</td>
<td>23</td>
<td>22</td>
<td>33.00</td>
<td>-10</td>
<td>0.003(^a)</td>
</tr>
</tbody>
</table>

\(^a\) : Wilcoxon Signed-Rank Test is very significant at \(p<0.05\)

Table 4 - 6 Model’s effects in comparing stroke outcomes between group

<table>
<thead>
<tr>
<th>Self-care Agency</th>
<th>Median</th>
<th>Mean Rank com. group</th>
<th>Mean Rank int. group</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before model intervention</td>
<td>72</td>
<td>32.55</td>
<td>21.67</td>
<td>0.002(^a)</td>
</tr>
<tr>
<td>After model intervention</td>
<td>72</td>
<td>21.63</td>
<td>36.87</td>
<td>&lt;0.0001(^b)</td>
</tr>
</tbody>
</table>

\(^a\) : Mann-Whitney Test is statistically significant at \(p<0.05\)
## Results: Model effects on Complications

Table - Model’s effects in comparing stroke outcomes within group

<table>
<thead>
<tr>
<th>Dysphagia</th>
<th>N</th>
<th>N for test</th>
<th>Wilcoxon Statistic</th>
<th>Estimated Median</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison group</td>
<td>32</td>
<td>29</td>
<td>0.00</td>
<td>-1.00</td>
<td>&lt;0.0001(^b)</td>
</tr>
<tr>
<td>Intervention group</td>
<td>23</td>
<td>16</td>
<td>0.00</td>
<td>-0.50</td>
<td>&lt;0.0001(^b)</td>
</tr>
</tbody>
</table>

\(a: \) Wilcoxon Signed-Rank Test is significant at \(p<0.05\)
Conclusion

1. The proposed continuing care model for the older adults with stroke in Can Tho City consisted of seven components
   1. Continuing care management;
   2. Family caregiver’s training;
   3. Family caregiver’s support;
   4. Resource allocation;
   5. Monitoring for stroke patient care;
   6. ADL and rehabilitation care; and
   7. Family reintegration

2. Effect of the model:
   Improve stroke outcomes in term of:
   – Quality of Life
   – Functional outcome
   – Self-care agency
   – Less dysphagia
Implication and recommendation

1. **Implication for nursing practice:**
   - Monitor – Home visit stroke patients monthly; collaborating with community health volunteers to monitor the patient

2. **Implication for nursing education**
   - The curriculum of stroke care should be developed for training nurses or health care providers in community

3. **Implication for administration**
   - The continuing care model should be added in hospital policy
   - Establishing stroke team and supporting capacity building for those working in stroke
   - Hospital should prepare a nurse manager

4. **Recommendation for further study**
   - A study with a larger sample size should be suggested for testing a continuing care model of stroke patients
Referents


Thank You