The Effect of Community Nurse-Led Transitional Care Program to Enhance Patient and Health Service Utilization Outcomes for the Older Adults with High Risk Readmissions: A Randomized Controlled Trial

Dr. Bonnie WONG
NC (Community), PMH
15 May 2019
Introduction

Elderly people - major consumers of HK health service

- Total resources spent on elderly patients amount to around 46% of HA cost of services

- Relatively risk of hospitalization: 4 times that of a non-elderly person < 65 years (HA 2017)

- Discharge from hospital early in response to the overstretched hospital service

- Shortcomings of under-prepared hospital discharge increase risk of hospital readmission
Aim and Methodology

**Aim:** To develop community nurse-led transitional care program and examine its effect to enhance post-discharge outcomes of elderly patients with chronic illnesses.

**Methodology:**
- A 8-week single blind randomized controlled trial
- Assigned to either intervention or control group
- Outcome measures: HADS, EQ5D, CDSES-SF
Results

- Total 106 subjects were recruited
- Mean age: 80 years and 67% male
- Attrition rate: 7.5%

✓ Those who received transitional care had significantly ↓ fewer events in terms of hospital readmission and AED utilization by the evaluative endpoint at 4 weeks (p=0.045)

✓ By the evaluative point at the 8th week and 12th week after hospital discharge, those who received transitional care had significantly ↓ lower rate of AED utilization (p=0.026) and (p=0.021) respectively
## Results

### Generalized Estimating Equation (GEE) analysis

Comparison of the anxiety and depression, health-related quality of life, and self-efficacy outcomes across the time between the control and intervention groups.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Group</th>
<th>Time</th>
<th>Group by Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (95% CI)</td>
<td>P value</td>
<td>B (95% CI)</td>
</tr>
<tr>
<td>HADS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>-0.962 (-2.286, 0.362)</td>
<td>0.154</td>
<td>-2.192 (-3.100, -1.285)</td>
</tr>
<tr>
<td>Depression</td>
<td>-0.264 (-1.651, 1.123)</td>
<td>0.709</td>
<td>-1.556 (-2.622, -0.490)</td>
</tr>
<tr>
<td>EQ-5D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index</td>
<td>0.095 (-0.017, 0.207)</td>
<td>0.095</td>
<td>0.251 (0.164, 0.338)</td>
</tr>
<tr>
<td>VAS</td>
<td>-0.849 (-6.393, 4.695)</td>
<td>0.764</td>
<td>12.434 (7.767, 17.102)</td>
</tr>
<tr>
<td>CDSES-SF</td>
<td>0.704 (0.164, 1.245)</td>
<td>0.011*</td>
<td>1.216 (0.884, 1.547)</td>
</tr>
</tbody>
</table>

*P < 0.05

The intervention group had significantly greater improvement in depression status and self-reported health-related quality of life in EQ_5D visual analogue scale scores.
Conclusion

The study affirms that community nurse-led care interventions are feasible and effective in applying into the local health care context to improve post-discharge outcomes of the elderly patients.