The increase in 30-day readmission rates after coronary artery bypass graft (CABG) surgery is a global concern, particularly with new reimbursement models. National benchmark for CABG 30-day readmission rate is 9.5%. Post-CABG patients experience unplanned hospital readmissions due to many preventable issues, such as medication non-adherence and non-medication reconciliation. Patients and their families often lack knowledge about the prevention of wound infections, signs of clinical deterioration and who to contact following discharge from the hospital.

Introduction & Background

- The purpose of the project was to evaluate the impact of a teach-back method within an individualized discharge teaching plan on self-care knowledge with the goal of reducing post-CABG 30-day readmission rates at a community hospital.
- The aims of the project were:
  1. To increase patient knowledge of self-care in post-CABG patients through individualized learning assessment and teach-back discharge education, as evidenced by post care behaviors.
  2. To decrease the 30-day readmission rate of post-CABG patients receiving individualized learning assessment and teach-back discharge education, as compared to patients with tradition discharge instruction.
  3. To compare patient knowledge between those who had a caregiver attend discharge teaching and those who did not have a caregiver in attendance.

Evidence-based Intervention

- The learning needs of patients were identified at different intervals and then used to develop a tailored discharge education plan for the patient while transitioning to go home.
- Individualized patient education allowed the patient to select topics that they deemed necessary.
- Teach-back method facilitated reinforcement of knowledge—shown in the literature to be consistently effective.
- Literature emphasizes importance of family/caregiver involvement in discharge education in reducing hospital readmission rates.

Purpose

- Design: one group pretest/posttest.
- Sample & Setting: Total of 48 participants. 19 participants for aim 1 & 3 and 29 participants for comparison group that fulfilled aim 2 (See Table 1 for sample demographics). Setting was a community hospital in Mid-Michigan with around 300 open heart patients a year.
- Measures: Knowledge was assessed using an adaptation of the Revised Heart Failure Self-Care behavior scale.
- Analysis: Descriptive statistics including mean, standard deviation, and frequencies were used to assess sample characteristics.

Methods

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total (n=48)</th>
<th>Intervention group (n=19)</th>
<th>Comparison (n=29)</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, (Mean ± SD)</td>
<td>67.4 (8.6)</td>
<td>71.2 (7.8)</td>
<td>65.9 (8.4)</td>
<td>-2.56</td>
<td>.01</td>
</tr>
<tr>
<td>Sex, (%)</td>
<td></td>
<td></td>
<td></td>
<td>2.03</td>
<td>.15</td>
</tr>
<tr>
<td>Males</td>
<td>35 (72.9%)</td>
<td>16 (84.2%)</td>
<td>19 (65.5%)</td>
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<td></td>
</tr>
<tr>
<td>Females</td>
<td>13 (27.1%)</td>
<td>3 (15.8%)</td>
<td>10 (34.5%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past surgeries, M (SD)</td>
<td>3.0 (1.8)</td>
<td>3.1 (1.8)</td>
<td>2.9 (1.8)</td>
<td>-1.05</td>
<td>.30</td>
</tr>
</tbody>
</table>

Note: SD = Standard Deviation

Results

Aim 1: Knowledge outcome measures:
- Knowledge scores increased with mean difference of 3.05 points (p < .01)

Aim 2: 30-day readmission rate outcome measures:
- No difference was noted between the intervention and control groups for 30-day readmission rates.

Aim 3: Caregiver effect on knowledge:
- For patients with caregivers, knowledge score increased on average 2.82 points (SD=2.21) versus 5 points (SD=4.24) for patients without a caregiver present (p<.35)

Conclusion

- This quality improvement project showed that the teach-back method within an individualized discharge teaching plan helped increase patient knowledge of self-care.
- Individualized education approaches give nurses the opportunity to educate patients on post-discharge self-care while building rapport.
- Although 30-day readmission rates did not improve during the project period, the results regarding patient knowledge and the role of caregivers in self-care still suggest that individualized discharge planning can have positive outcomes for this population.

References