THE IMPACT OF ADVANCED PRACTICE NURSE-LED DISCHARGE PLANNING ON 30-DAY READMISSION RATES IN PATIENTS POSTCORONARY ARTERY BYPASS GRAFT SURGERY

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Introduction & Background

- 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

Purpose

- **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

Methods

- **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.

Table 1.

Sample Demographics

Variables	Total (n=48)	Intervention group (n=19)	Comparison (n=29)	t/x^2	*p*
Age, M(SD)	67.4 (8.6)	71.2 (7.8)	65.0 (8.4)	-2.56	.01
Sex, *n*(%)				2.03	.15
Males	35 (72.9)	16 (84.2)	19 (65.5)		
Females	13 (27.1)	3 (15.8)	10 (34.5)		
Past surgeries, M (SD)	3.0 (1.8)	3.1 (1.8)	2.9 (1.8)	-1.05	.30

Note SD = Standard Deviation

Results

Aim 1: Knowledge outcome measures:

- Knowledge scores increased with mean difference of 3.05 points (p <0.01)

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.

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