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Impact of a Standardized Discharge Teaching Protocol for Congestive Heart Failure Patients in Emergency Room

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Executive Summary: Staff Education Project

Impact of a Standardized Discharge Teaching Protocol for Congestive Heart Failure Patients in Emergency Room

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Summary

This doctoral project was a staff education initiative to improve nursing knowledge through a standardized, evidence-based teaching discharge protocol for congestive heart failure (CHF) patients in emergency room (ER) observation units. CHF is a leading cause of hospital readmissions, often due to gaps in discharge education. Strengthening nursing clinical expertise by improving knowledge through standardized education supports effective teaching and promotes patient adherence. This project sought to answer the following practice-focused question: Does implementing a staff education on CHF discharge practices result in an increase in staff knowledge? A PowerPoint presentation was created based on the analysis, design, development, implementation, and evaluation (ADDIE) model and delivered via live education sessions. Pre- and post-education surveys were included to assess the effects of the staff education. Surveys were analyzed using descriptive statistics to measure the change from presurvey to postsurvey. Participant presurvey scores were 73.5% and rose to 100% in the postsurvey, indicating notable knowledge gains. Key findings support integrating standardized discharge teaching into routine practice, emphasizing ongoing staff education. This initiative exemplifies evidence-based nursing education, supporting health equity for all patients and thereby promoting positive social change. Future recommendations to be considered include exploring integrating digital education tools, interdisciplinary collaboration for discharge planning, and ongoing competency assessments for nursing staff.

Background

The prevalence of CHF-related readmissions underscores the need for enhanced discharge education, particularly in ER observation units where patients receive short-term care before transitioning home (Bilicki, 2024). The inconsistency in discharge teaching practices among nursing staff at the practice site contributed to disparities in patient knowledge and adherence. Standardizing discharge education through evidence-based protocols addressed this critical gap, ensuring consistency and efficiency in patient teaching.

The project question was: Does implementing a staff education on CHF discharge practices result in an increase in staff knowledge? The project's purpose was to evaluate whether a structured discharge intervention improved nursing staff knowledge. Cañon-Montañez et al. (2021) stated that by aligning discharge education with best practices, staff knowledge will be improved.

A systematic review of existing literature underscored the impact of structured education programs in improving staff knowledge. I reviewed 25 scholarly articles based on John Hopkins Evidence-Based model (Dang et al., 2021). Nine articles were deemed relevant to the project. Two articles were Level I, one article was Level II, five articles were Level III, and one article was Level V. Three of the articles were Quality A and six were Quality B. The strong Level I evidence showed structured discharge education and follow-up significantly lowers readmission rates (Bilicki, 2024; Cañon-Montañez et al., 2021). The good Level II studies indicated that nurse-led education and teach-back methods improve patient outcomes (Kolasa et al., 2022; Oh et al., 2021). The Level III evidence suggested that task force strategies may help but lack rigorous evaluation

(Macchio et al., 2020). Level V sources supported the use of staff education as a means to standardize care and improve discharge processes (Crotteau, 2020; Davio, 2020). Additionally, Kolasa et al. (2022) and Oh et al. (2021) demonstrated that structured nurse-led interventions significantly enhance patient understanding and compliance, leading to improved disease management.

The literature used to support this project is robust and was drawn from high-quality, peer-reviewed studies, quasi-experimental studies, and systematic reviews that consistently demonstrated the effectiveness of standardized discharge education and the teach-back method in improving nursing knowledge. The evidence was collected from rigorous research designs, including randomized controlled trials and large cohort studies, ensuring strong validity, reliability, and applicability to clinical practice. Consistent findings across diverse health care settings reinforce the validity of implementing structured discharge education as a best practice for CHF management.

Staff Education Project Development

The project participants consisted of full- and part-time nursing staff working in an ER observation unit where they participated in structured educational training. I used a pre-education survey to evaluate the participants' baseline understanding before receiving a targeted educational session about CHF management, related discharge procedures, and self-management practices. In the targeted educational session, I provided a structured PowerPoint presentation on evidence-based discharge teaching for CHF patients based on the ADDIE model. The ADDIE model is used to help identify the learning need in a structured way and ensures all learning activities serve that goal, which offers an

integrated approach to learning (Abuhassna et al., 2024). The results of applying the ADDIE model in this CHF discharge teaching protocol initiative were:

- Analysis:
  - Goal: Enhance nursing staff's knowledge and competency in delivering standardized, evidence-based discharge teaching for CHF patients in the ER observation unit.
  - Review current discharge teaching practices for CHF patients.
  - Identify knowledge gaps among nursing staff regarding EBP discharge protocols.
  - Target audience: ER observation unit nursing staff.
  - Learning needs: Improve staff knowledge of CHF education, discharge protocols, and teach-back communication.
  - Evidence-based justification: Studies have shown that structured discharge education enhances knowledge retention and reduces hospital readmissions (White et al., 2013).
- Design:
  - Instructional methods: PowerPoint presentations and simulation scenarios.
  - Assessment plan: Pre- and posttests as well as self-efficacy surveys.
- Development:
  - Materials: Training manual, PowerPoint slides, and quick-reference guides.
  - Toolkits: Pre-/posttest knowledge quizzes, self-assessment checklists, and training slide decks.

- Implementation:
  - Delivery mode: In-person.
  - Facilitators: Clinical educators, champions, and project lead.
  - Support strategies: Mentoring, leadership support, and feedback loop.
- Evaluation:
  - Formative: Ongoing feedback during training, quizzes, and role-play assessments.
  - Summative: Post-training knowledge tests and self-efficacy surveys.

I provided this content to 20 nurses selected from a group of 27 eligible participants. The session addressed important areas, including sodium intake limitations and symptom worsening recognition combined with medication adherence and follow-up scheduling, while employing the teach-back method to verify patient comprehension. Participants demonstrated their baseline knowledge by completing the pretest survey. Following the session, participants completed a posttest survey to assess the impact of the education presentation.

I collected the survey tools via unidentified envelopes to ensure participant confidentiality. Data were collected from pre- and postsurvey results to measure participants' knowledge acquisition. Descriptive statistics were used to measure the score change from the pretest survey to the posttest survey. The results provided quantifiable evidence of the nursing staff's change in knowledge.

I evaluated the project process based on improvements in staff knowledge and confidence in patient education. Staff shared qualitative feedback about their learning

experience while providing their thoughts on the educational session's relevance and improvement ideas.

Results

The participants' mean pretest score across all questions was 73.5%, whereas their mean posttest score reached 100%, reflecting a mean knowledge gain of 26.5 percentage points. The participants' post-intervention results indicated a substantial improvement in staff knowledge across all surveyed domains, with particularly significant gains in understanding key components of CHF discharge education (+85%), recommended sodium intake (+80%), and optimal follow-up timing (+85%). The near-perfect baseline score for some items (e.g., daily weighing recommendation and evidence-based discharge teaching) suggests that participants' prior knowledge in these areas was already well-established. Table 1 provides an overview of the pre- and posttest scores for each survey item.

Table 1

Pre- and Posttest Results

#	Question	Pretest (%)	Posttest (%)	Percentage point change
1	Primary goal of discharge teaching	100	100	0%
2	Three key components of CHF discharge education	15	100	+85%
3	Recommended daily sodium intake	20	100	+80%
4	Signs of worsening CHF	95	100	+5%
5	Daily weighing recommendation	100	100	0%
6	Recommended postdischarge follow up	15	100	+85%
7	Three diuretics for managing CHF	75	100	+25%
8	Evidence-based discharge teaching	100	100	0%
9	Most effective tool for assessing teaching understanding	95	100	+5%
10	Key principle of the teach-back method	95	100	+5%

Note. Average pretest score: 735%/10 = 73.5%. Average posttest score: 1000%/10 = 100%.

The project findings supported the benefits and effectiveness of a structured, evidence-based discharge education approach in enhancing nursing staff knowledge in CHF patient education. These results emphasize the potential of standardized teachings in reducing ER visits given the importance of discharge improving patient outcomes.

The project contributed to enhanced nursing knowledge and improved patient education quality. Organizationally, it reinforced the need for continued professional development and standardized training practices. One limitation of this project was the

variability in staff engagement due to multiple interruptions during the presentation sessions affecting the flow of the presentation and participants' concentration.

The implications of this project extend beyond the local ER observation unit, serving as a model for health care institutions seeking to improve patient education and promote the reduction of CHF readmissions. The findings support broader policy recommendations advocating for structured discharge teaching as a standard component of nursing practice beyond the local site.

Conclusions

The impact of this project on the organization showed the significant value of structured educational interventions in enhancing staff knowledge. By instituting standardized discharge teaching, health care organizations can improve patient outcomes and reduce avoidable readmissions (Davio, 2020). I recommend that future research should be considered to explore integrating digital education tools, interdisciplinary collaboration for discharge planning, and ongoing competency assessments for nursing staff (see Crotteau, 2020). Additionally, expanding structured discharge education to other chronic conditions may further improve patient self-management and long-term health outcomes.

This project supports evidenced-based nursing practice by promoting quality health care for all patients, ultimately reducing disparities in CHF management and improving population health outcomes and, therefore, creating positive social change.

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