

Preventing Hospital Readmission in the Sepsis Patient: A Multi-Modal Discharge National Framework

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INTRODUCTION

- Sepsis, the leading cause of hospital readmissions in the United States, accounts for \$23.7 billion of aggregate costs.¹
- The Medicare Hospital Readmissions Reduction Program (HRRP) requires hospitals to provide efficient patient discharge coordination to prevent readmissions or risk financial penalties.
- Effective discharge coordination and post-discharge follow-ups are strategies to mitigate hospital readmissions.
- The continual increase in sepsis readmissions have placed a huge burden on all aspects of the healthcare system: financial, societal, and humanitarian costs.
- Although a substantial value capture opportunity exists to reduce avoidable readmissions, a significant gap exists in sepsis-specific discharge interventions.

30-Day Hospital Readmission Rates²

	Rate of Readmission	Avg Cost per Readmission
Heart Attack	1.30%	\$9,424
COPD	4.60%	\$8,417
Pneumonia	5.00%	\$9,533
Heart Failure	6.70%	\$9,051
Sepsis	12.20%	\$10,070

OBJECTIVES

The purpose of this Doctorate of Nursing Practice (DNP) quality improvement project was to design and evaluate an evidence-based framework for reducing sepsis readmissions in the acute care setting with national impact.

Project Aims:

- 1) Develop a multi-modal discharge framework to reduce sepsis readmissions.
- 2) Implement and evaluate the framework in reducing readmissions.
- 3) Recommend framework for sustainability and scalability at the national level.

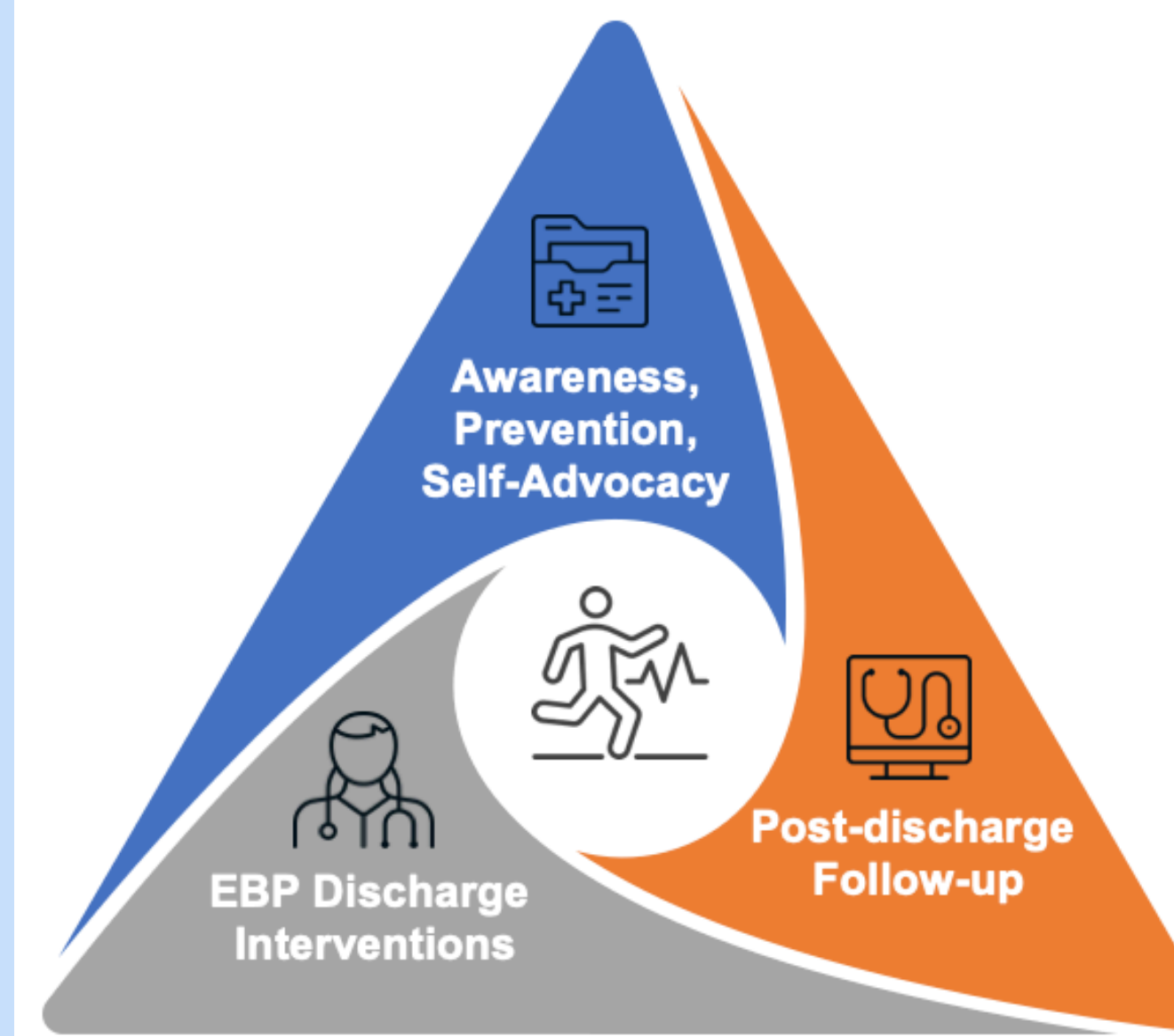
METHODS

This DNP project was implemented at Dignity Health Glendale Memorial Hospital & Health Center (GMHHC) in Glendale, California. The hospital is part of CommonSpirit Health, a 21-state not-for-profit health system with over 1,000 care sites across the U.S.

Aim 1

The multidisciplinary framework developed incorporated literature on: (1) Sepsis Nurse-Navigator driven discharge interventions; (2) Patient awareness using an expert-validated sepsis education tool; and (3) Patient-Nurse collaboration using telehealth or telephonic follow-up at critical time points.

Yolo Framework to Reduce Sepsis Readmissions



1. Nurse Approach

Identify nurse-driven, evidence-based, discharge interventions

2. Patient Approach

Develop awareness of sepsis symptoms, prevention, and self-advocacy using a sepsis tool

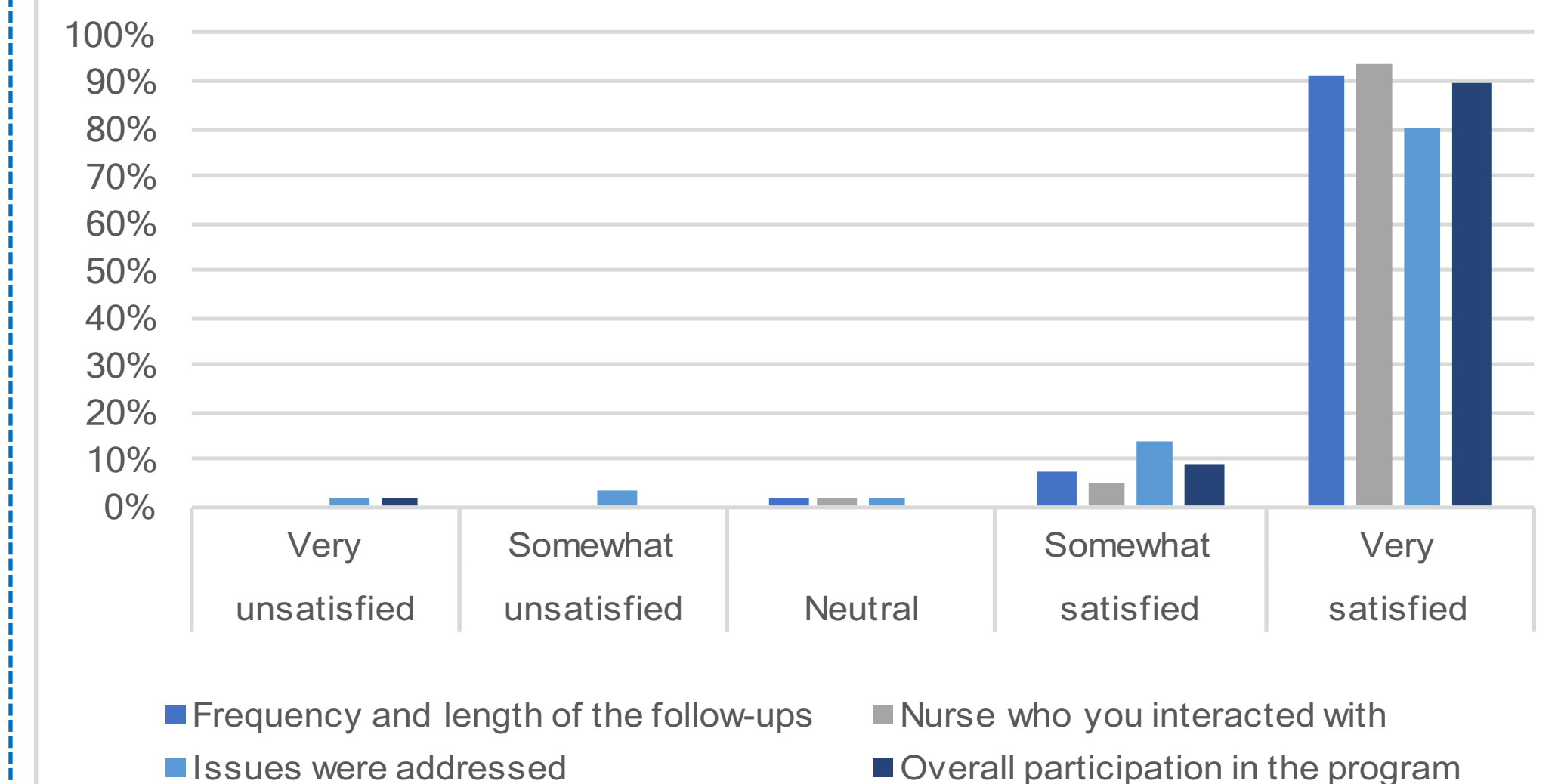
3. Patient & Nurse Approach

Conduct a structured post-discharge follow-up utilizing two different modalities

RESULTS

- A total of 6 patients were readmitted during the 6-month period, resulting in a 17.2% readmission rate.
- At least 95% of the patients reported satisfaction from the follow-ups (M= 4.85 [95% CI= 4.76, 4.93]).
- At least 95% of the nurses self-reported satisfaction with the follow-up procedures (M=4.95 [95% CI= 4.93, 4.99]).

Frequency of Distribution of Responses of Patients to "Please Rate your Satisfaction after Receiving Follow-ups from the Hospital" (N=66)



DISCUSSION AND CONCLUSION

NATIONAL IMPACT: The framework demonstrated promise in reducing sepsis readmissions. Baseline readmission rate was 44.2% vs. 17.2% post project implementation. This reduction was 20% greater than the average 30-day all-cause readmission rate among Medicare patients.³

An estimated cost savings of \$700,000 was projected for those patients not readmitted during the project phase. The impact extends to significant cost reduction for US healthcare systems.

SELECTED REFERENCES

1. Torio, C., Moore, B. (2016). National inpatient hospital costs: The most expensive conditions by payer 2013. *Agency for Healthcare Research and Quality*.
2. Mayr, et al. (2017). Cost of unplanned 30-day readmissions. *Journal of American Medical Association*.
3. Bailey, et al. (2019). Characteristics of 30-day all-cause readmissions. *Healthcare Cost and Utilization Project*.