

(House & Havens, 2017) Research Proposal

Sarah Frantz

Research Mentor: Dr. Michael Fremed

Title of Project: Improving Communication Between Nursing and Physician Teams: A QI Approach

Brief Background and Rationale:

Good communication between teams has routinely been shown to improve patient outcomes (House & Havens, 2017; Stimpfel et al., 2014) and decrease medical errors (House & Havens, 2017; Manojlovich & DeCicco, 2007; Wieke Noviyanti et al., 2021). Communication on 6 Tower could certainly be improved based on conversations with nursing leadership and the 2021 Gallup Hospital Employee Experience Survey. This survey asks questions relating to how employees feel about the work environment, and while only some of the questions related to communication the survey showed that 6 Tower employees (including nursing, MAs, UAs) had an engagement score in the 13th percentile for the industry. Additionally, conversations with nursing leadership and attendings on the floor revealed that over the past year, following the initial COVID-19 wave in NYC, there was significant turn over in nursing staff leading to many newly graduated nurses joining the team. The 6 Tower stakeholders are in agreement that communication on the floor could be improved at this time, though further information is needed to determine the best ways to make these changes.

Hypothesis:

We expect that interventions focusing on closed loop communication, joint education, and frequent check ins will improve perceived communication between nursing and physician staff as measured by pre and post intervention surveys.

Study Design:

The first part of this study will be a baseline survey to assess nursing and physician perceptions of communication, as well as to determine key drivers for improving communication between the two teams. The baseline survey will contain rating scale questions to assess perceptions of communication and opportunities to provide input to the team. The survey will also ask individuals to assess frequency of interruptions to patient care and work flow over their most recently worked shifts. The key drivers assessment will likely ask key stakeholders to rank what they see as the greatest barriers to improving communication. Once this information has been obtained an interdisciplinary team including nursing and physician leadership will meet to formalize targeted interventions as well as process and outcome measures based on these interventions. Possible process measures include number of pre-noon discharges, frequency with which nurses are invited to rounds, and number of plan clarifying messages sent to residents, though this will be more easily defined once targeted interventions have been determined. The outcome measures will include responses to the rating scale questions to assess perceptions of communication.

Once targeted interventions and measurements have been established an IHI Model for Improvement will be utilized to test the impact of the interventions over a 6 month period. Nursing and resident teams will be asked to complete brief surveys at regular intervals while interventions

are being adjusted. They will also be asked to complete a survey 3 months after the completion of the study period to assess for sustainability of the interventions.

As a control, nurses on 6 Tower, who care for both cardiology and non-cardiology patients, will be asked to complete one survey as relates to their cardiology patients and a second survey as relates to their non cardiology patients at the baseline timepoint and again 6 months after initiation of the targeted interventions.

Subject Selection:

Subjects will be all nurses working on MSCH 6 Tower and all residents rotating through the general cardiology service.

Statistical Analyses:

A paired t-test analysis will be performed on baseline and 6 month post intervention surveys of nurses. All nurses will be given a unique identifier to pair their results. As residents only rotate through cardiology for one month a year, an unpaired t-test will be performed on baseline and 6 month post intervention surveys for residents. Run charts will be used to plot survey responses as well as process and outcome measures over time.

Potential Benefits:

Improved communication between teams will directly benefit both the teams and the patients they are caring for.

Potential Risks:

Risk of breach of confidentiality. All effort will be made to minimize risk.

References

- House, S., & Havens, D. (2017). Nurses' and Physicians' Perceptions of Nurse-Physician Collaboration: A Systematic Review. *J Nurs Adm*, 47(3), 165-171. <https://doi.org/10.1097/nna.0000000000000460>
- Manojlovich, M., & DeCicco, B. (2007). Healthy work environments, nurse-physician communication, and patients' outcomes. *Am J Crit Care*, 16(6), 536-543.
- Stimpfel, A. W., Rosen, J. E., & McHugh, M. D. (2014). Understanding the role of the professional practice environment on quality of care in Magnet® and non-Magnet hospitals. *J Nurs Adm*, 44(1), 10-16. <https://doi.org/10.1097/nna.0000000000000015>
- Wieke Noviyanti, L., Ahsan, A., & Sudartya, T. S. (2021). Exploring the relationship between nurses' communication satisfaction and patient safety culture. *J Public Health Res*, 10(2). <https://doi.org/10.4081/jphr.2021.2225>