

# Evaluating the Role of an RN Facilitator in Enhancing ICU Liberation Bundle Implementation in the CVIC: A Multi-Site Trial Analysis Claire Stephenson, Nursing Student; Anna Krupp PhD, RN

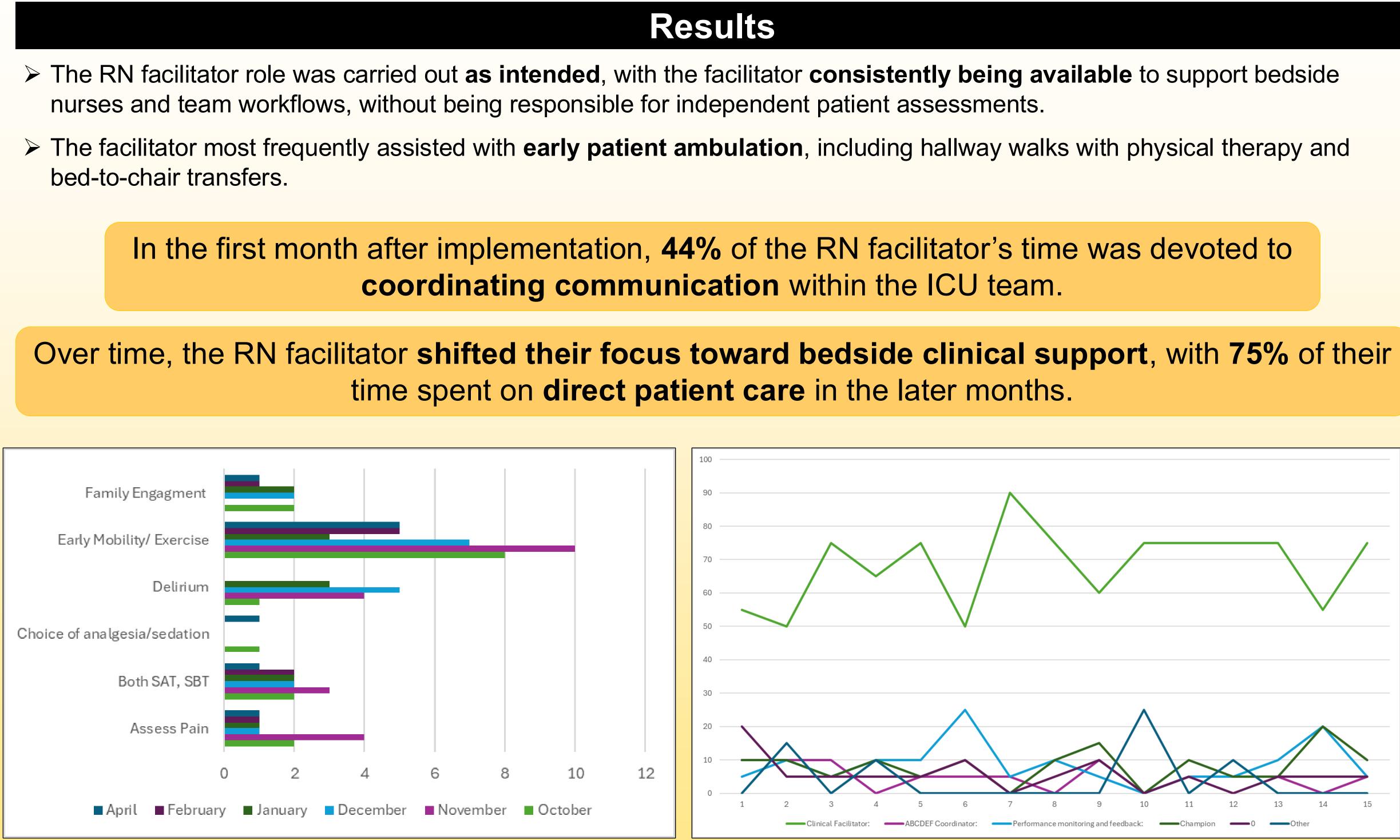
#### College of Nursing

### Introduction

- Approximately 5 million patients are admitted to U.S. ICUs annually<sup>1</sup>. Medical errors and adverse events occur at an average rate of 1.7 errors per patient day<sup>2</sup>.
- > The ABCDEF bundle has been demonstrated to improve patient outcomes, including reduced mortality and ventilation needs, when implemented consistently<sup>3</sup>.
- Key obstacles to consistent in bundle implementation include limited staff education, inconsistent staffing, and lack of team coordination<sup>4</sup>.
- The multi-site BEST-ICU trial evaluates the impact of an RN facilitator dedicated to the ICU liberation bundle in the CVICU, aiming to improve bundle adherence and patient outcomes.
- > The objective of this analysis is to assess the fidelity of the RN facilitator role in the CVICU by comparing observational data to the defined responsibilities of the position and to examine shifts in the facilitator's focus over time to evaluate the role's impact on bedside support.

## Methods

- Observational data was collected thru organized field notes once a month in 4-hour increments of time. Field notes were summarized, analyzed and compared with the defined facilitator role.
- > The 16-hour RN implementation facilitator training included outlining roles, key elements, and addressing barriers to implementation.
- RN facilitators participated in monthly meetings to identify ongoing needs and opportunities to support on-going learning.



#### **Figure 1: Observed RN Facilitator Practices During a 4-Hour** Window over a 5-Month Period.

This figure illustrates the distribution of activities performed by the RN facilitator during repeated 4-hour observation periods. Categories represent core functions of the facilitator role, including family engagement, patient mobilization and other unit responsibilities. This data reflects the changing role of facilitator engagement over time.

University of Iowa

Figure 2: RN Self-Reported Time Allocation Across a 5-Month Period

This figure illustrates RN perceptiosn of how their time was allocated across the various RN facilitator roles, collected from three randomly selected days each month over a 5-month period. Categories align with those used in observational data to allow for comparison. The trends reflect how RNs perceived their role over time and are used to assess alignment between self-reported activity and observed facilitator practices.

### Conclusion

- The RN facilitator role in the CVICU was implemented with a 64% fidelity to the defined clinical facilitator and coordinator responsibilities.
- A clear shift was observed from team communication coordination to hands-on clinical facilitation as the role developed
- The facilitator's consistent presence enabled timely support to bedside nurses, enhancing ABCDEF bundle implementation.
- These findings support the integration of RN facilitators in ICU settings as a strategy to improve workflow efficiency and patient outcomes in critical care environments.

### References

- [1] Society of Critical Care Medicine. (n.d.). Critical care statistics. SCCM. Retrieved April 17, 2025, from https://sccm.org/communications/critical-care-
- [2] Rothschild, J. M., Landrigan, C. P., Cronin, J. W., Kaushal, R., Lockley, S. W., Burdick, E., Stone, P. H., Lilly, C. M., Katz, J. T., Czeisler, C. A., & Bates, D. W. (2005). The Critical Care Safety Study: The incidence and nature of adverse events and serious medical errors in intensive care. Critical care medicine, 33(8), 1694–1700. https://doi.org/10.1097/01.ccm.0000171609.91035.bd
- [3] Balas, M. C., Pun, B. T., Pasero, C., Engel, H. J., Perme, C., Esbrook, C. L., Kelly, T., Hargett, K. D., Posa, P. J., Barr, J., Devlin, J. W., Morse, A., Barnes-Daly, M. A., Puntillo, K. A., Aldrich, J. M., Schweickert, W. D., Harmon, L., Byrum, D. G., Carson, S. S., Ely, E. W., ... Stollings, J. L. (2019). Common Challenges to Effective ABCDEF Bundle Implementation: The ICU Liberation Campaign Experience. Critical care nurse, 39(1), 46-60. https://doiorg.proxy.lib.uiowa.edu/10.4037/ccn2019927
- [4] Pun, B. T., Balas, M. C., Barnes-Daly, M. A., Thompson, J. L., Aldrich, J. M., Barr, J., Byrum, D., Carson, S. S., Devlin, J. W., Engel, H. J., Esbrook, C. L., Hargett, K. D., Harmon, L., Hielsberg, C., Jackson, J. C., Kelly, T. L., Kumar, V., Millner, L., Morse, A., Perme, C. S., ... Ely, E. W. (2019). Caring for Critically III Patients with the ABCDEF Bundle: Results of the ICU Liberation Collaborative in Over 15,000 Adults. Critical care medicine, 47(1), 3-14. https://doiorg.proxy.lib.uiowa.edu/10.1097/CCM.00000000003482

#### Acknowledgements

- Special thanks to the University of Iowa's College of Nursing's Honors Program
- This research was supported by the NIH Pragmatic Trials Collaboratory by cooperative agreement (1UG3HL165740-01A1, 4UH3HL165740-02) from the National Institutes of Health National Heart, Lung, and Blood Institute/National Institute of Nursing Research.