

Gut Instinct Meets Clinical Structure: Implementation of GutCheck^{NEC} with SBAR

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PROBLEM

Background & Significance

- Necrotizing Enterocolitis (NEC) is a leading cause of mortality, with a rate of 10%-50%, in Neonatal Intensive Care Units (NICUs) worldwide.
- Early diagnosis & swift medical management of NEC is vital.

Problem Statement

- In a Level IV NICU with a high proportion of novice nurses, a lack of standardized education and communication tools hindered early identification and provider notification of early NEC signs and symptoms.

PICOT Question

- For bedside nurses working in the NICU (P), does a standardized SBAR communication tool for reporting concern for Necrotizing Enterocolitis to NICU clinicians (I) positively influence teamwork and communication (O) as compared with traditional communication for reporting (C) over a three-month period (T)?

Purpose

- Implementation of the GutCheck^{NEC} with SBAR, a validated tool that is a part of a larger NEC-Zero Project, into a high-acuity, Level IV NICU to increase communication of early signs and symptoms of NEC between bedside nurses and medical providers.

OBJECTIVES

Tool Integration

- GutCheck^{NEC} SBAR will be used by 60% of respondents by May 1, 2025.

Team Communication & Collaboration

- Statistically significant improvement in Relational Coordination Index between nursing and clinicians using RC-Survey (RCS) between December 2024 to May 2025.



Scan the QR code for a list of references.

EBP INTERVENTION

Educational Session: A 30-minute presentation on NEC and GutCheck^{NEC} with SBAR.

Simulation Training: High-fidelity clinical scenarios to reinforce assessment and communication.

Bedside Integration: Laminated GutCheck^{NEC} with SBAR forms at each patient's bedside.

METHODS

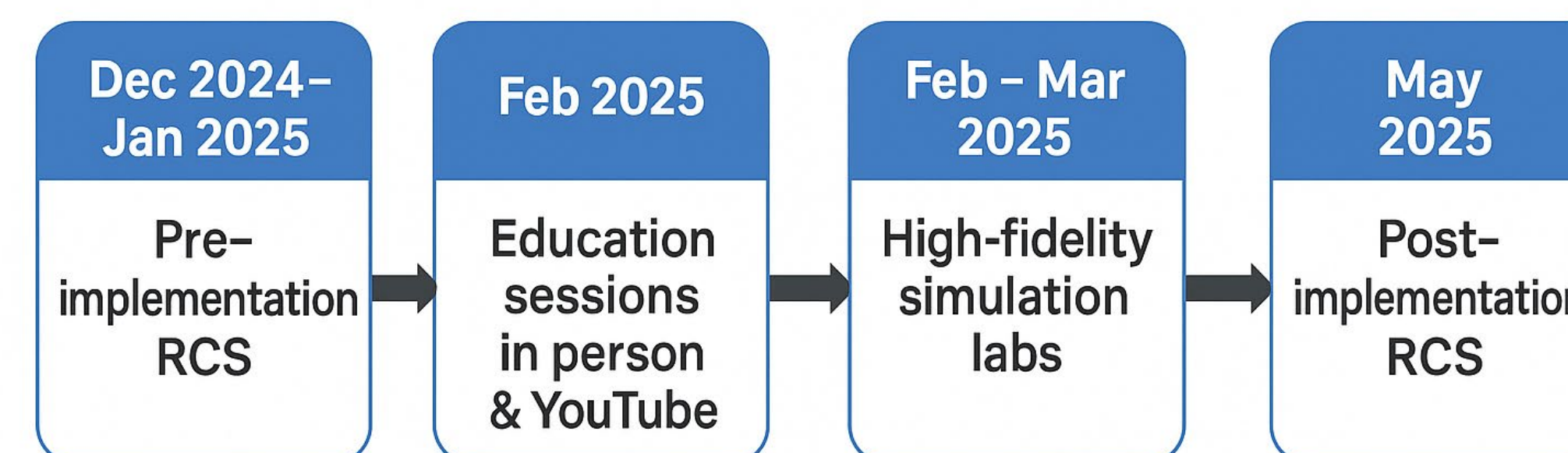
Theoretical Framework

- Revised Iowa Model of Evidence-Based Practice to Promote Excellence in Health Care

Relational Coordination (RC) Theory

- Emphasizes the importance of high-quality communication and collaboration between organizational groups, rather than looking at relationships at the individual level.
- The RC-Survey is a validated tool for measuring teamwork and collaboration between groups.

Timeline



OUTCOMES

Improved knowledge & confidence in NEC assessment and communication.

Use of GutCheck^{NEC} with SBAR tool among RNs during provider notifications; 70% report usage post interventions

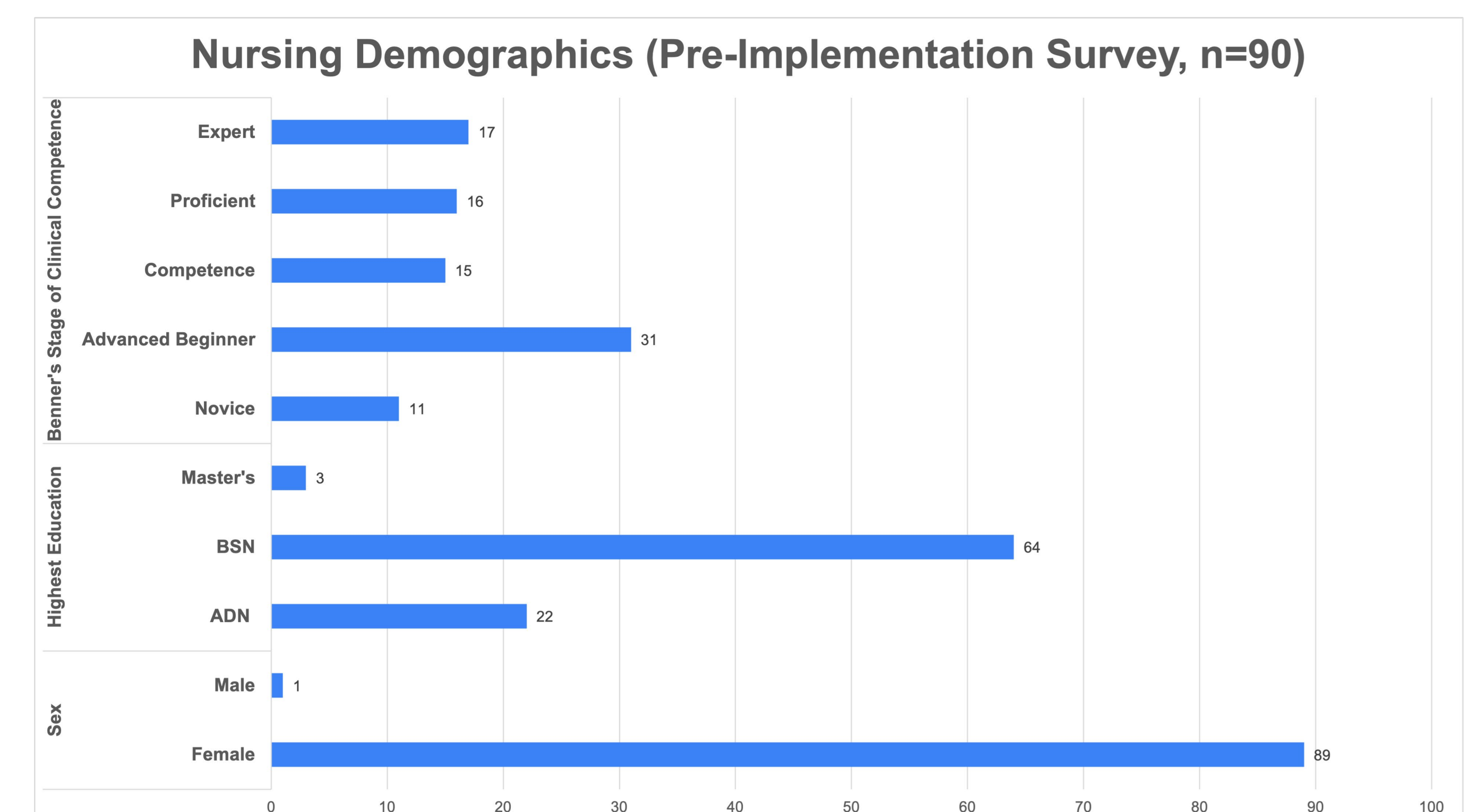
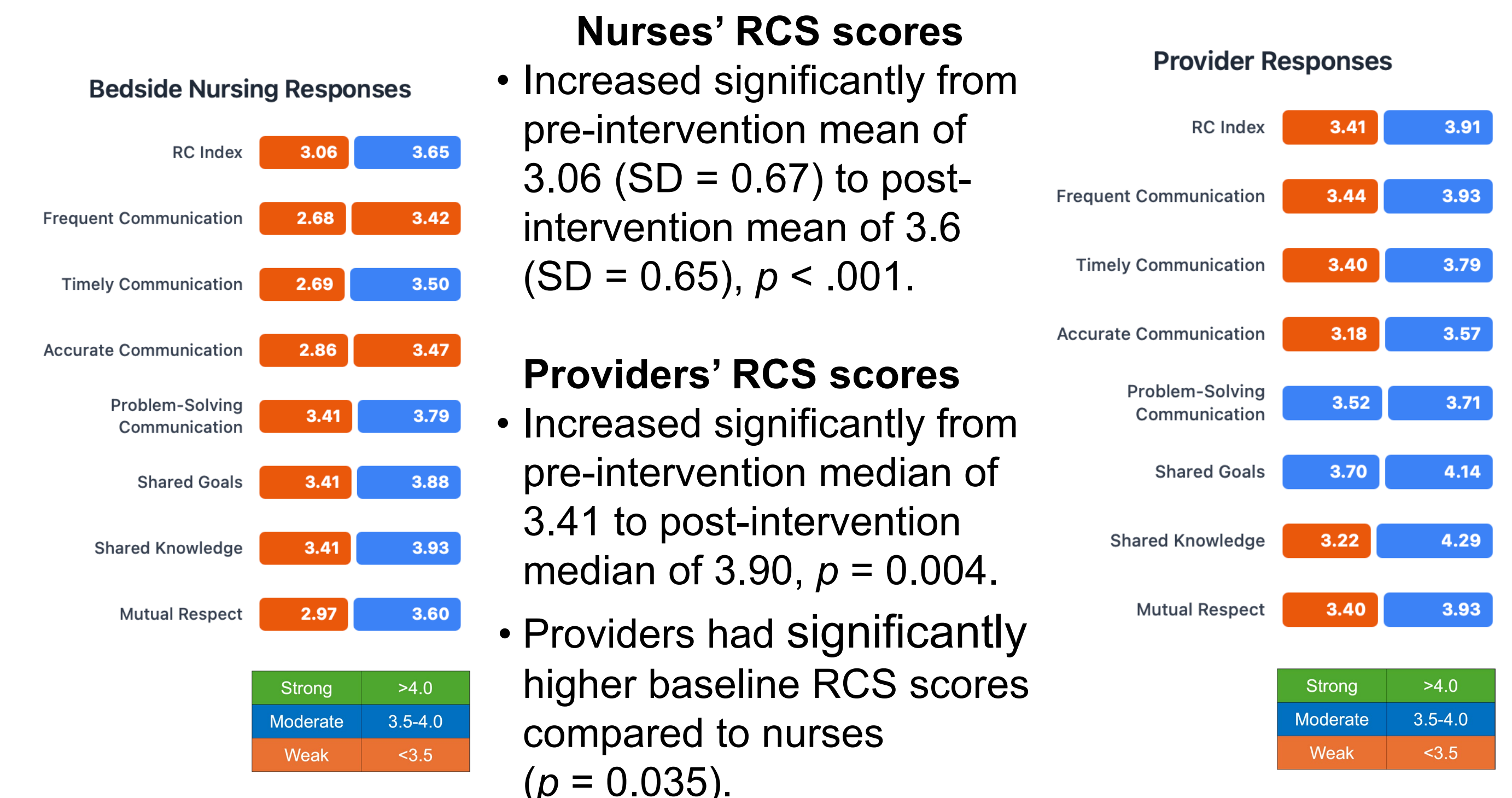
Positive feedback from nurses on simulation effectiveness (via SET-M tool).

Statistically significant increase in Relational Correlation Index

Potential cost-benefit ratio=52.3, every \$1 invested, project yields ~\$52.30 in benefits, 1 NEC prevention saves ~\$318,259

RC-SURVEY STATISTICAL ANALYSIS

Pre- and post-intervention RCS (Relational Coordination Survey) composite scores were calculated for both providers and bedside nurses using SPSS Software Analysis. T-tests or appropriate non-parametric tests were used to analyze score changes.



RECOMMENDATIONS

Lessons Learned & Implications for Practice

- The GutCheck^{NEC} with SBAR tool provides a framework to ensure quality communication between teams.
- Simulation-based training, specifically use of the SIMCharacters "Paul" high-fidelity neonatal mannequin, is recommended for NEC nursing education.
- Sustainability requires involving all stakeholders and maintaining education efforts.