

Evidence-Based Approach to Decreasing Length of Stay in the NICU

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Purpose: “Can improving continuity of care decrease length of stay in the NICU?”

Background

Factors contributing to the challenges of providing sensitive, individualized care to patients and families in the Neonatal Intensive Care Unit (NICU) include:

- Increased survival due to continuous advances in medical care
- NICU census is rising
- NICU acuity is ever-increasing

The NICU created a “Neighborhood Nursing” model to impact length of stay, as well as improve health care provider and family satisfaction.

Description

The NICU used the Mercy Evidence-Based Practice and Research Model© to guide their work:

1. Formulate a well devised question
2. Collect the best evidence and critically appraise the literature
3. Apply the Best Evidence
4. Disseminate findings

The Shared Governance work group was instrumental in culture transformation in the unit.

The concept of clinical microsystems led to identification of four “neighborhoods” within the unit.

Education and changes in staffing patterns were the first steps in implementing this culture change.

Measuring Change

Four areas were assessed to determine the effects of their efforts:

1. Length of Stay (LOS)
2. Nursing Satisfaction
3. Family Satisfaction
4. Physician Satisfaction

Descriptive statistics were used to analyze the length of stay and satisfaction data. Two Proportions test used to calculate p -values ($\alpha = 0.05$).

Results

Decreased LOS was noted for most gestational ages (graph #1)

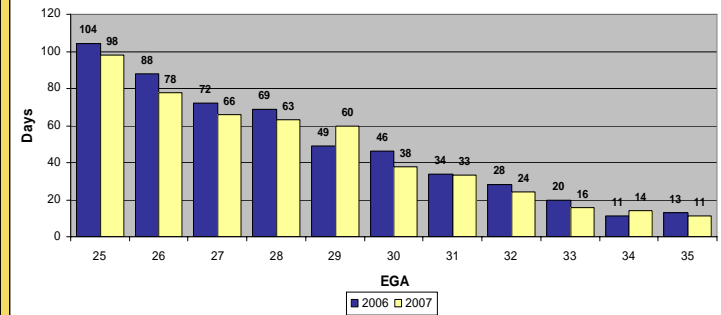
Nursing Satisfaction results demonstrated an increase in all areas on the survey (graph #2). Specifically:

- 26% in “My coworkers are dedicated to doing excellent work.” (P-Value = 0.000)
- 35% in “Optimal patient care is supported by communication with my coworkers.” (P-Value = 0.000)
- 39% in “My knowledge of my patients’ needs supports excellence.” (P-Value = 0.000)

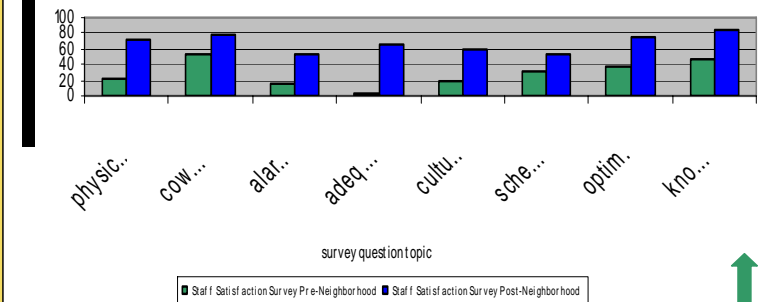
Family Satisfaction results demonstrated improved measures in Picker Patient Satisfaction survey.

Physician Satisfaction results indicated anecdotally “not much change has been noticed yet”.

Average Length of Stay Broken Down by Estimate Gestational Age
Calendar Years 2006 and 2007



Nursing Satisfaction Survey



Significance to Practice

- Neighborhood Nursing has a positive impact on patients, families and nursing satisfaction
- Clinical Microsystems (neighborhoods) promoted more opportunities for clinical coaching relationships amongst nurses
- Implementing change is challenging, especially related to nursing schedules
- This initiative contributes to evidence-based neonatal nursing practice promoting continuity of care and a culture of patient safety which can be replicated in other settings