Evaluating the Impact of Simulation on Mother-Baby nurses knowledge, skill, satisfaction and confidence levels

A Quality Improvement Project

Jolene Carlton, MSN, CPNP-PC/AC, RNC-NIC, EMT-B

Johns Hopkins University

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On my honor, I pledge that I have neither given nor received unauthorized assistance on this paper. – 04/19/2023, Jolene Carlton
Abstract

**Background and Purpose:** Respiratory distress in newborns is a significant problem around the world and is one of the most significant problems that infants face at birth and within the first week of life. The first month of a newborn's life is considered the neonatal period and is the most vulnerable time for infant’s survival. If respiratory distress is not noted and effectively treated then it can lead to infant mortality.

**Methods:** A total of 17 participants who met inclusion criteria were recruited from the post-partum, mother-baby unit at a level I trauma center. All 17 participants completed the pre- and post-intervention surveys. There were 3 total surveys that were evaluated with two surveys using a post simulation and 2-3 week simulation comparison and a survey to evaluate skill level in a pre and post intervention the day of the simulation. Pre-intervention demographic information and a 6 question survey evaluating mother-baby nurses perceived knowledge on identifying respiratory distress in newborns, perceived skill level in providing Positive Pressure Ventilation (PPV) to newborns with a neo-puff and self inflating bag, and perceived satisfaction and confidence levels in identifying respiratory distress in newborns.

**Results:** There was significant statistical and clinical evidence showing improved skill level of mother-baby nurses’ ability to provide PPV to newborns via a neo-puff and a self-inflating bag. The evaluations from post-simulation to 2 to 3 weeks after simulation evaluating knowledge level, satisfaction and confidence levels showed no change over the 2 to 3 week time frame.

**Conclusion:** Findings suggest that in-situ simulations on mother-baby unit improves nursing skill level in being able to provide positive pressure ventilation to newborns.

**Implications:** The study findings support the need for further in-situ simulations to continue to maintain skill level in providing PPV to infants.

**Keywords:** PPV, newborn respiratory distress, simulation