Use of NICU Education to Decrease Stress for High Risk Pregnant Women on Bed Rest

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Problem
• Preterm birth is a leading cause of neonatal death in the United States.
• Bed rest has been a mainstay of treatment to prevent preterm birth.
• Bed rest can have physiologic, behavioral, social, economic and emotional impact on families causing undue stress due to fear of the unknown and uncertainty about the health of both the mother and her infant.
• High stress levels may cause women to deliver prematurely leading to an increase in premature births and low birth weight infants.

Purpose
• To decrease the amount of perceived stress of high risk pregnant women on bed rest.

Hypothesis
• Providing online NICU education via “Moms In Waiting” website will decrease maternal stress levels and improve outcomes of premature infants.

Literature Review
• Many studies have been conducted on the effect of hospitalization or restricted activity on high risk pregnant women (Grote & Bledsoe, 2007; Maloni, 2010).
• Increased stress while on bed rest may result in a higher number of premature birth and therefore, low birth weight infants (Mercer et al., 2006).
• Fear of the unknown and uncertainty can cause stress for any high risk pregnant woman (Thorman & McLean, 2006).
• Decreasing the stress of those on prenatal bed rest could lead to better health and outcomes (Orr et al., 2007; Richter et al., 2007).

Methodology
• Sample: n = 119 High Risk Pregnant Women on Bed Rest using computerized randomized sampling
• Design: Quantitative Experimental & Qualitative Evaluation of Comments.
• Survey Tool: Perceived Stress Scale (PSS-10)
• Data Analysis: Independent T-Test
• Two groups: NICU Education and No Education

Demographics of Participants
• Gestational age of 18 weeks to 33 weeks
• Maternal age of 19 years to 41 years
• Approximately 66% singleton pregnancies and 33% multiple pregnancies

Results
• Out of the 119 participants 50 took at least 2 surveys.
• Independent T-test was not significant.
• Only 29 of 119 (24%) filled out a post delivery survey.
• The majority of babies were admitted to the NICU after delivery (69%).

POST BED REST SURVEY

| How stressful was your hospital stay? | 2.7 |
| How stressful was your bed rest experience? | 3.1 |
| How helpful was the on-line support group? | 2.6 |
| How helpful was the NICU Education Website? | 3.9 |
| How helpful was writing in the journal/blog? | 2.9 |
| How helpful was the NICU Tour? (45%) toured | 4.2 |
| How many NICU Nurse or Neonatologist visits did you receive? (other comments) | 0 to 6 |

"Too many"
"None"
"Daily"

Discussion
• Even though the results were not significant, the feedback from the participants was overall positive.
• Tours of the NICU were the highest rated intervention on the final survey; therefore, it would be beneficial for all high risks moms to receive a tour prior to delivery.
• Comments received from participants on ways to decrease their stress levels were:
  • Consistent care givers
  • Consistent plan of care
  • More sleep
  • Place for family
  • Social support among the women on bed rest.