



Example of Rigorous Evaluation Research: Promoting Preterm Infant Development

The Project

In *Promoting Preterm Infant Development* Vida produced, evaluated, and distributed two media programs to teach parents of preterm newborns and nursing staff in Neonatal Intensive Care Units (NICU) about how to foster brain development in preterm infants. The package consists of:

- *No Matter How Small* – This program introduces to parents the topic of preterm infant brain development, showing ways in which they can help support the normal growth and development of their infant’s brain.
- *Focus on the Brain* – For staff, this two part program presents a practical overview of recent science and research illuminating the process of fetal and neonatal development. It clearly presents evidence regarding interventions to support optimal brain growth and development in preterm infants.

The Evaluation Research

To evaluate both media programs, the Researcher designed a **randomized clinical trial**. Hospital NICU sites were assigned at random to one of the following conditions: (1) both staff and parents received the respective programs, (2) only staff received the staff program, (3) only parents received the parent program, (4) neither staff nor parents received the program. (Controls received the program after the study). In addition, the research used a pre-post design to control for possible pre-existing differences between subjects at the sites.

Parents of preterm infants in the NICU completed a **questionnaire** at enrollment (baseline) and again one week later, measuring these “**outcomes**”: their knowledge, confidence, and stress around caring for their preterm infant. Researchers hypothesized that parents who received the parent DVD program would exhibit significantly greater increase in knowledge of and positive attitudes about preterm brain development from baseline to follow-up than parents who received the usual education and training. Analyses compared changes in the outcomes between parents who did and did not receive the program.

Nurses in the NICU completed a questionnaire at baseline, one week later, and four months later, measuring knowledge and attitudes about care of preterm newborns. Researchers **hypothesized** that nurses who received the DVD program would exhibit significantly greater increase in knowledge of and positive attitudes about preterm brain development from baseline to follow-up than nurses who received the usual education and training – and that these changes would persist four months following the intervention. **Analyses** compared changes in the outcomes from baseline to each follow-up between staff who did and did not receive the program.

Stress levels decreased for parents who received the DVD intervention.

Results found that **parents** who received the DVD intervention improved their knowledge of newborn brain development, and their confidence in implementing **developmentally supportive care** more than parents who did not receive the DVD. Also, their stress levels decreased, whereas stress levels increased for parents in the control group. **Nurses** at intervention sites exhibited greater knowledge of developmentally supportive care and its importance, suggesting that this intervention promises to be a standardized tool for training clinical NICU staff.

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