Abstract

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Project Title: Mother-Administered Interventions for VLBW Infants

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Abstract: DESCRIPTION (provided by applicant): Many researchers have tested in-hospital interventions to reduce the incidence of developmental problems in preterm infants. Although many have had positive short-term effects, relatively little is known about their long-term effects, the relative advantages of different interventions, their effects on parenting, or which infants benefit most from which interventions. This study will examine the short- and long-term effects of 2 maternally administered interventions for very-low-birthweight (VLBW) preterms on infant health and development, maternal psychological well being, and the maternal-child relationship, in comparison with a control group and with each other. The 2 interventions have been shown to be safe and have positive immediate effects for preterms: the auditorytactile-visual-vestibular (ATW) intervention and kangaroo care. Administering 1 of these interventions will allow the mother to assume a specific role in the care of her infant in the hospital. Comparing the interventions will enable us to determine the relative importance of the direct effects of the interventions on the infant and the indirect effects through the mother. 380 VLBW preterms and their mothers will be recruited. Using a 3-group design, they will be randomly assigned to the ATW intervention, kangaroo care, or an attention control group. Intervention nurses will instruct mothers in the intervention appropriate for their group and support them in administering it during hospitalization. Mothers will continue the intervention at home until the infant is 2 months corrected age. Baseline data will be collected at enrollment. Outcome data will be collected at hospital discharge and 2 months to determine effects immediately after the intervention and at 6 and 12 months corrected age to determine if the intervention effects persist after the conclusion of the intervention and affect the mother-infant relationship and infant health and development. Infant health and development will be measured by the length of hospitalization, growth, occurrence of health problems, and the Bayley II assessment. Maternal psychological well being will be measured using depressive symptoms, anxiety, posttraumatic stress symptoms, worry about child health, and parenting stress. The maternal-child relationship will be measured using videotapes of mother-infant interaction, the HOME Inventory, and maternal perception of child vulnerability. Cost-effectiveness of the interventions will also be determined.