Developmental Care —
Practice Strategies to Protect and Enhance Development of the Preterm Infant

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Introduction

Developmental care is not a new concept but one that is becoming a standard of care worldwide. Developmental care refers to the impact of the neonatal intensive care unit (NICU) environment on infant and family care. Aspects of the environment, such as lighting and sound, are two important considerations of developmental care. But, it goes farther than that. It includes positioning, handling of the infant, the type of bed in which the premature infant is housed, how health professionals interact with the infant/family, and how the family is incorporated into care.\(^1\)\(^2\)\(^3\)\(^4\) We hope the FAQs below will be useful to foster professional dialogue on several specific issues. If you have further questions, please feel free to post them in the “Discussion” section.


Is developmental care a passing fad or the newest standard of care?

Developmental care has been around for more than two decades. It refers to concerns about the macro (unit level) or micro (within the personal space of the newborn). It supposes that environmental variables, either positively or negatively, affect growth and development especially of the premature infant. Evidence is mounting to support this notion via our research on lighting, ambient sound levels, positioning, use of kangaroo care, and even pain management. Yet, some neonatal intensive care units (NICUs) are still using audible alarms, overhead paging systems (if not in the unit, in adjacent hallways), and bright non-cycled lights. The practices uphold tradition and not the growing evidence as found in Cochrane Systematic Integrated Reviews\(^1\) to support the need for dimmed lights or at least, cycled light, diminished sound levels, use of visual versus audible alarms, and positioning devices to support correct posture to encourage growth.

Should developmental care only be instituted when the infant is physiologically stable?

Research has shown that developmental interventions, such as the use of procedural lighting, cycling of lights, covering of incubators, and a switch to visual from audible alarms promotes better oxygen saturations, more steady heart and respiratory levels, and more stable patterns. To withhold developmental care interventions until an infant is stable negates the possibility of inducing stability with their use. The more immature the infant, the more vulnerable he or she is to the environment. The premature infant does not have the reserves to withstand environmental stresses the way a more mature infant might. These differences in maturity and neurologic wiring indicate that developmental care should be considered as a tool to promote stability, not withheld until stability is present.
How does the family fit into the context of developmental care?

Within the context of developmental care, the family is an integral member of the health team. Developmental care incorporates the family as part of the macro (and in some cases, micro) environment. It includes teaching the family about environment, noise levels, and the use of maternal voice recordings to promote comfort and stability. It gives them power to be a part of their premature infant's care and to protect their infant's development.


Supplemental Readings


White R et al. Recommended standards for newborn ICU design: report of the fifth consensus conference on newborn ICU design. 2002;Clearwater Beach, Florida. 
http://www.nd.edu/~kkolberg/DesignStandards.htm