

Stanley N. Graven, MD: 1932–2024

A Visionary for the Care of Babies and Families

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Stanley N. Graven, MD

Several pioneering neonatologists laid the foundation for practice with sick and preterm babies in intensive care. Stanley Graven was one of them. His contributions to the field in the 1960s and 70s were not those of new surgical procedures, identification of new treatments, or technological advances. Instead, he was known for developing hospital systems that developed specialized neonatal units and resulted in de-

creased infant mortality. He further influenced care of babies by showing that education for the then basic level hospitals in delivery room care, control of glucose and temperature as well as early recognition and support for respiratory distress could significantly change outcomes for babies. The model he developed in the United States included regionalization and leveling of perinatal care. The current leveling of NICU designations by acuity continues to be a standard for NICUs in the US and Canada. Dr. Graven also chaired the development of standards for neonatology practice resulting in the "birth" of neonatology as a recognized subspecialty.¹

Dr. Graven and his lifelong partner, Mavis, worked to change other less recognized systems and practices typical in early NICUs; those of restricting parents from being with their babies in intensive care. Recognizing that outcomes of both mothers and babies could be enhanced when they were not separated in the perinatal period, they worked to change restrictive policies that they knew influenced early parent/child relationships. Perhaps that was the birth of family centered care practice change as we know it today.

Dr. Graven also recognized the impact of the physical/sensory environment on babies in intensive care. At the same time—in the 1980s and 90s—there was increasing interest in the brain development of preterm babies, primarily in the area of provision of extra sensory stimulation which was designed to enhance outcomes. Several prominent developmental psychologists and nurses began studies that added sensory stimulation, perceived to be optimal to support brain develop-

ment.²⁻⁶ Recognizing that additional sensory input for the developing newborn could be less than optimal, Heidelise Als,⁷⁻¹⁰ diverged from the typical stimulation based protocols and developed the individualized developmental care approach.

Recognizing the importance of the impact of the environment and caregiving on babies' outcomes, and the diverse approaches to caregiving practices that were used in the 1980s, Dr. Graven convened a group of interprofessional leaders who gathered available information about the impact of intensive care environments on the physiology and development of preterm babies. He compiled a library of more than 30,000 related references that included both the physical environment and those related to optimal caregiving. Two complimentary articles were published in the early 1990s: one on the sensory environment and one on optimal caregiving.^{11,12}

These comprehensive reviews of early developmental research thus opened an expanded view of how-to best support both medical and developmental outcomes of babies and their families. Since then, Dr. Graven and others have provided a host of articles and books documenting the importance of the sensory and caregiving environment on babies' and families' outcomes.

Although Dr. Graven's professional publications, accomplishments and awards are too numerous to cite individually and can be found in his obituary. <https://www.facebook.com/stanleyngraven>.

Several areas of Dr. Graven's legacy have particular implications for the work of those of us in the NIDCAP community.

- Articulation of the science underlying the impact of the sensory environment and the importance of family inclusion in caregiving supported the provision of individualized developmental caregiving. It laid the groundwork for NICU design, practice change and the necessity of systems support. Some of these essential articles have been co-authored by NIDCAP professionals^{13,14}
- The expanding interest in the impact of the environment on babies and families in intensive care fostered the establishment of an annual internationally acclaimed Gravens meeting on the *Environment of Care for High Risk Infants and their Families* (now in its 37th year of attendance). Many of the NIDCAP global community members have been included as faculty for these meetings.

- With the support of Dr. Graven, several globally recognized collaborative efforts have been established to advance evidence-based standards for NICU caregiving. The Standards for NICU Design chaired by Dr. Robert White (now in its 10th revision)¹⁵ are globally recognized recommendations for optimal environments for babies and families.
- The parallel Standards, Competencies and Best Practices for Infant and Family Centered Developmental Care (IFCDC), chaired by Dr. Joy Browne developed under the Gravens umbrella. The standards established a guide for evidence based developmentally appropriate caregiving in intensive care, consistent with the values of individualized developmental care and systems change.^{16,17}

Dr. Graven died on July 8th, 2024, in Dallas, Oregon. He was 92 years old. His wife and life love Mavis carries on his spirit and his surviving children, as well as his grandchildren, nieces and nephews continue to share his generosity and love. His celebration of life took place in late September. It was a time of recognition of his legacy and his amazing contributions to babies, families and all of us who have benefitted from professional and personal relationships with him.

Until recently, he told us he was working on a research project, singing in a choir with Mavis and thinking more about the development of spirituality in young children. His commitment to emphasizing the spiritual development of children leaves us with yet another challenge, that of understanding an aspect of caregiving not typically recognized in our professional roles.

A number of those of us in the NIDCAP community have been both directly and indirectly influenced by Dr. Graven's professional contributions. However, those activities do not capture his personal impact on all those with whom he has worked. In working with him on programs, writings, celebrations and more personal issues, his humility, humor, and pragmatic approaches contributed to the establishment of collaborative and supportive relationships. Whether he was in the lead role on a task force meeting, at the podium in front of a large audience, or in a one-on-one conversation, he was able to provide a safe space for talking about challenging or novel issues. His gentle leadership included providing options that typically promoted compromise and collaboration. As a result, the quality of the resulting work reflected the contributions of all involved whether new ideas, controversial issues or vision of the future for care for babies and families.

He was always approachable, had a funny joke to share, or a story that provided for insights and reflections, and always a benevolent twinkle in his eyes.

The giants of our field are slowly disappearing, one by one, but they leave us their vision for "what could be" to challenge us to continue their work. Dr. Graven left us with work to be continued, and a vision of what could be for babies and families who experience intensive care. His loss leaves big shoes to fill, but also a solid foundation from which to walk forward.



Dr. Heidelise Als receiving the Graven's Award

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