Beyond the Primary Care Office: Multidisciplinary Approaches to Bright Futures Implementation
Mary Margaret Gottesman, PhD, RN, CPNP, FAAN; and Barbara J. Deloian, PhD, RN, CPNP
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CME EDUCATIONAL OBJECTIVES

1. Demonstrate the interdependence of disciplines in the delivery of integrated healthcare and health maintenance to children in today’s society.
2. Describe a new paradigm in health professional education wherein professionals collaborate in their education and thus better understand the skills each brings to the care of the patient.
3. Determine the steps necessary to build an effective multidisciplinary collaborative community of practice.

ABOUT THE AUTHOR

Mary Margaret Gottesman, PhD, RN, CPNP, FAAN, is Associate Professor, Clinical Director, Doctor of Nursing Practice Program and PNP Specialty, The Ohio State University College of Nursing; Co-Chair, Bright Futures Pediatric Implementation Project; and Past President, National Association of Pediatric Nurse Practitioners. Barbara J. Deloian, PhD, RN, CPNP, is Co-Chair, Bright Futures Infancy Expert Panel; Past President, National Association of Pediatric Nurse Practitioners, and State Nursing Consultant, Health Care Program for Children with Special Needs (HCP), Colorado Department of Public Health and Environment.

Address correspondence to: Mary Margaret Gottesman, PhD, RN, CPNP, FAAN, The Ohio State University College of Nursing 1585 Neil Avenue, Columbus, OH 43210; or e-mail gottesman.6@osu.edu.

Dr. Gottesman and Dr. Deloian have disclosed no relevant financial relationships.

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Educational Objectives Overview
To the newly graduated resident in pediatrics, the well-child visit is perhaps the most enjoyable but the most daunting of all patient visits. For many residents in training, it is this very encounter that convinced them to care for children. On the one hand, the visit allows the opportunity to guide parents in the rearing of their child and to help alleviate any fears they may have about development, growth, and well-being. On the other hand, the ever-present specter of missing a subtle disease finding looms over every encounter, not to mention the challenging task of documenting the details of each visit to comply with reimbursement requirements. Add to these pressures the increasing number of topics to be covered in each visit, and the well-child encounter can quickly become the most dreaded part of any day.

This issue of Pediatric Annals is the second in a two-part series highlighting the development of the Bright Futures Guidelines, third edition. In these guidelines, careful attention has been paid to focusing on what could be done in a given clinical encounter rather than on what might be done. Thoughtful consideration has been given to what families feel are the most pressing issues at each visit, as well as to how each practice can evolve into part of a true multidisciplinary medical home for each patient.

After reviewing this issue of Pediatric Annals, the participant will have a much better understanding of the challenges and rewards faced in implementing the Bright Futures Guidelines in their daily practice. Additionally, one will be better able to recognize the role one can play in the community of care that must surround each child in order to optimize the overall outcome.

Table of Contents
Health Promotion: Core Concepts in Building Successful Clinical Encounters
Danielle Laraque, MD

Using Bright Futures to Improve Community Health
Wendy S. Davis, MD; Patricia Berry, MPH; and Judith S. Shaw EdD, MPH, RN

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It is time for the care of children to move beyond preoccupation with preventing disease and preserving life, to knowledgeable care that promotes the physical, psychological, developmental, and social health of children. Health promotion is the new frontier in pediatric healthcare.¹ There is cause to be proud of the effective immunizations that prevent many common

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One of the most critical elements in realizing the goal of a bright future for each child is the creation of “communities of practice.”

A MULTI-FACTORIAL FRAMEWORK FOR UNDERSTANDING CHILD HEALTH OUTCOMES

“Children’s health is the extent to which individual children or groups of children are able or enabled to (a) develop and realize their potential, (b) satisfy their needs, and (c) develop the capacities that allow them to interact successfully with their biological, physical, and social environments.”

Halfon and Hochstein’s Life Course Health Development Model summarizes the multiplicity of influences that interplay to affect children’s health outcomes. It is no surprise that among these factors are the child and family’s psychological, physical, cultural, and social environments. Importantly, there is also the child’s genetic heritage that interacts in complex ways with these aspects of the child’s environment at critical periods in development, influencing the child’s health outcomes.

Creating Bright Futures at Every Age

Effective collaborative partnerships form around shared vision, goals, and outcomes. Families want their children to be healthy, happy, successful individuals, and pediatric professionals share those goals. The pediatric health professions contribute uniquely and jointly to children’s health from birth through young adulthood. Bright Futures Guidelines for the Health Supervision of Infants, Children, and Adolescents, third edition, offers pediatric health professionals from many disciplines a sound foundation for understanding the unique qualities of each developmental stage from infancy through early adulthood. The guidelines also provide guidance to assure the provision of consistent health information to families, older children, and adolescents, and identify priority issues in health for each age group. Importantly, Bright Futures, third edition, raises awareness of the health promotion and preventive healthcare needs for the 40% of U.S. children with special healthcare needs, disabilities, behavioral, and learning problems. It is easy...
to forget that underneath the often overwhelming need of these children for specialized care, there is a child and his or her family who see the child first and the disability or behavioral or learning problem second.13

As we move into a new era of pediatric care, it is critical to appreciate the diversity of professionals who are partners in achieving the vision of child health set forth in the landmark publication, *Children’s Health, the Nation’s Wealth.* It compels us to consider the requisites for integration, coordination, and connectivity among pediatric health professionals.

Newborns are the most fragile of human beings. Both medical and nursing professionals assure the safe physiological transition of the newborn to extrauterine life. Audiologists provide for the early identification of hearing deficits that will impair speech and language development if left untreated. Nurses play a key role in assuring that parents possess the necessary knowledge and skills to care for the vulnerable newborn and to recognize signs of illness requiring prompt medical care. Lactation consultants offer critical support services that assist women achieving success in breastfeeding their newborns and making the commitment to breastfeed their infants throughout the first year of life.

Infancy is a critical period for establishing sound foundations for mental and physical health, learning, and development.14 Appreciation for the importance of early and knowledgeable intervention to guide parents and infants through this period is greater than ever. Early childhood mental health specialists assist parents in adapting to the challenges of meeting the unique needs of their infant for nurturance. Occupational therapists facilitate infant acquisition of fine motor skills, physical therapists facilitate the acquisition of gross motor skills, and speech and language therapists facilitate speech and language development. Childcare providers offer a safe environment outside the home, and early childhood educators assure enriching experiences. Genetic specialists and early interventionists identify children at developmental risk and develop plans of care to mitigate risks.

In early childhood, clinical dietitians and nutritionists provide knowledgeable support and education to parents as children transition to the family diet and meal times. Preschool educators facilitate early literacy and school readiness. Pediatric psychologists and psychiatrists identify and treat early childhood mental health, developmental, and parenting disorders, while social workers assure access to resources for parents and support in parenting well.

During the school age and adolescent years, teachers, coaches, and school nurses profoundly affect the educational, physical health, and social well-being of children. Adult leaders in spiritual, social, and recreational activities serve as important role models and guides in exploring and strengthening the talents, interests, and values of children and adolescents. Public health professionals influence the number and types of health promotion and protection services available to assure a healthful environment and quality health services for all community members.

**CREATING THE FUTURE**

**WE ENVISION**

Collaboration toward the common goal of children’s wellness is a concept easily embraced at the intellectual level. It is far more difficult to create the rela-

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**These multiple layers of factors impact the numbers and types of risk and protective factors operating in the evolution of any individual child’s health outcomes.**
professional barriers to support one another in cohesive efforts toward children’s wellness. Primary care practices committed to the care of the child actively shape a community of practice. Key to shaping such communities is belief in the superior value of coordinated care with complementary resources and competencies from each partner.

HEALTH PROFESSIONAL EDUCATION: THE BIRTHPLACE OF COMMUNITIES OF PRACTICE

Creating the health professional of the future requires educational development in four elements. These include preparation for collaborative practice and teamwork, development of skill in the use of information technology, expertise in the improvement of quality of care, and commitment to and knowledge about how to improve life in communities through capacity building strategies.\textsuperscript{16,18,19}

The IOM has called for the commitment of professional educational programs to structured, consistent, multidisciplinary learning opportunities.\textsuperscript{16} Getting to know one’s partners in care is crucial. Learning together sharpens appreciation for the unique knowledge and skills of each profession and helps to dispel myths about fellow health professions. Through repeated interactions and co-learning, each partner learns to value the partner, to develop trust in one’s co-professionals, to develop a sense of ownership for the process of providing high quality, and to safely care for children and their families.\textsuperscript{20}

Strong teamwork skills are essential. The commitment to the well-being of the child and family overrides professional tendencies toward self-protection, self-interest and self-sufficiency.\textsuperscript{21} Learning to actively listen and communicate effectively with team members, a perception of partners as equal in the enterprise of care, and shared decision making help prepare health professionals for quality, collaborative care. Goleman notes that emotional competence influences excellence in performance and, hence, quality of care. It characterizes highly effective teams, balances emotional expressiveness with emotional restraint, and generates a sense of inter-professional safety.\textsuperscript{22} This sense of safety makes it possible to openly express differences of opinion and promotes active contributions to the best plan of care for the patient.

Pay for performance and the demand for interconnected, coordinated, and integrated healthcare services require the education of health professionals to include knowledge of and skill in quality improvement and information technology.\textsuperscript{23} The health professionals of the future will need skill not only in providing safe and quality healthcare for individuals but also in shaping systems of care for at-risk groups in the community, and even larger populations.\textsuperscript{24} Access to clinical information and decision support systems for health professionals, access to information and resources for families, and automatic linkages among programs and services are only possible with the skilled application of information technology to our care. Quality improvement strategies include skill in accessing and understanding epidemiological data to planning and evaluating systems of care. New professionals also need to learn to apply rapid-cycle change strategies to improving performance in a variety of benchmarks for high-quality pediatric primary care.\textsuperscript{25}

Learning how to create community coalitions and engage in effective advocacy to influence legislation and policy takes professionals beyond their own practice to influence the larger environment in which children and their families live, learn, and work.\textsuperscript{26} The Life Course Health Development Model highlights the impact of policy, the economy, and community environment on child well-being.\textsuperscript{2} This is particularly evident when considering the consistent associations among economic downturns, family poverty, and the number of children who are homeless or living in foster care.\textsuperscript{27} Thus, it is critical for young health professionals to master fundamental skills in maximizing the positive impact of these contributors to child health.

BUILDING EFFECTIVE COMMUNITIES OF PRACTICE

Building an effective multidisciplinary collaboration is not intuitive. Gardner identifies 10 key lessons to their creation.\textsuperscript{28} First, know yourself. Reflective learning and practice lead to conscious awareness of our values and priorities, and our interpersonal style and response tendencies, as well as their impact on what we do and how well we do it.\textsuperscript{29}

Secondly, value and manage diversity.\textsuperscript{28} Effective collaborations include members with a diversity of abilities, knowledge, and perspectives. Diversity of perspectives enriches planning and decision-making. If all team members think alike and agree consistently, poor conceptualization is likely. Active listening, positive acceptance of differences, and recognition of diverse perspectives achieve better outcomes for children and their families.\textsuperscript{30}

The third key is the development of constructive conflict management skills.\textsuperscript{28} Among these skills are the ability to draw out differing perspectives from team members, deal openly with emotional discord, and generate compromise.

Related to conflict management is the fourth element, the creation of win-win situations. Dominance leads to one-sided victories by the more powerful partner, feeding distrust, and jeopardizing cooperation. In contrast, collaboration aims for a winning resolution for all team members, building trust, good will, and cooperation.\textsuperscript{31}

A fifth element is mastery of communication and organizational skills.\textsuperscript{28} Ex-
cellent communication ability comprises clinical competence, self-confidence, assertiveness, tolerance for diversity and ambiguity, flexibility, and the desire to be cooperative in the service of the greater goal of child and family well-being.28

Sixth, appreciate that collaboration is a journey, not a destination.28 It takes time and effort on a routine basis to clarify roles and expectations and to build rapport and trust. This relates directly to the seventh element, using multidisciplinary opportunities to build collaboration.28 Time is precious. Regularly occurring events such as clinical rounds, patient care conferences, and team meetings foster information sharing, collaborative patient care planning, and mutual learning.33 It is important for professionals to be actively engaged in listening and contributing to the plan of care.

A related element is to accept that collaboration often occurs in spontaneous ways.28 Many of the most important and energizing collaborative exchanges occur during impromptu exchanges. This leads to the ninth element, which is the need to balance individualism with unity to prevent stagnation of thinking and unproductive relationships. The 10th element is to know that collaboration is not required for every decision.28 Collaboration works best to address complex and difficult issues in the care of children and families.

FROM DREAM TO REALITY

How might all of these ideas come together in real practice? Margolis, Stevens, Bordley, et al offer a valuable example in their intervention study. Their project aimed to improve the delivery of healthcare services and to improve the outcomes for high-risk families in one community.34 The intervention consisted of several levels: the community, the practice, and the family. These included changes in policy to increase resources to practices and families, collaboration among multiple practice organizations, and enhanced communication between, among, and within public and private practice organizations to improve coordination and avoid wasteful duplication of services.34

Over a 3-year period, women in the intervention group were significantly more likely to use contraception, to not smoke tobacco, and to provide their children with safe and stimulating home environments. Intervention group children were significantly more likely to receive well-child care visits and less likely to be injured. Intervention women also averaged fewer months on public assistance after the birth of their children.

This example provides a comprehensive example of the application of the full range of skills necessary to shape the third generation of pediatric healthcare. These include the following: collaboration among providers and organizations, communication within a practice and among stakeholders in the community, teamwork to accomplish the goal of coordinated services for low-income women and their infants, the application of information technology to facilitate interconnections within the system of care, the targeting of at-risk community groups, community capacity building to assure access to care and to avoid wasteful duplication of services, and the application of rapid cycle change strategies to enhance office-based care. This project demonstrates the type of major step forward in quality of care that evolves from shared vision and commitment among collaborators, who create the systems of communication and connections that benefit children and families.

CONCLUSION

Multidisciplinary collaboration has the potential to positively impact the quality of care for children and their families through shared visions and goals. The Bright Futures Guidelines for the Health Supervision of Infants, Children, and Adolescents, third edition, provides pediatric professionals with a unified vision of excellent wellness care for children from birth to young adulthood, and their families. It also supports the importance of grounding these efforts in the context of the community. Our challenge is to create effective communities of practice to realize optimal health for children of all ages in partnership with families.

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