

Teaching Child Development and Behavior to Family Practice Residents

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Child development and behavior, while important to family-oriented primary medical care, are rarely taught in family practice residencies. New developments and a new emphasis in this area of pediatrics are occurring. This paper describes efforts at the University of Arizona to elucidate the family physician's role, his need for training in this area, content areas for training, and the design of a one-month elective for family practice residents.

Child development and behavior are generally regarded as important components of family-centered medical care for children, yet infrequently are they systematically taught in family practice residencies. In the past few years, many pediatric training programs have increased their emphasis in these areas, pediatric journals have devoted considerably more attention to developmental and behavioral issues, continuing education programs have emphasized these areas, and new journals and texts in child development and behavior for physicians have appeared.¹⁻⁴ Psychosocial and behavioral concerns constitute a "new pediatric

morbidity" as health care providers have become aware of the broad impact of chronic conditions upon children's psychosocial development and upon the functioning of their families.

The Task Force on Pediatric Education in 1978 emphasized the need for more training in child development and behavior for all providers of primary health care.⁵ They cited a perceived lack of confidence by previously trained primary care physicians to deal with such problems, an increased importance of psychosocial issues, and a greater tendency for parents to bring children to physicians with these concerns. A 1980 report found that 5 to 15 percent of child health encounters per year in a variety of primary care settings involved behavioral, social, or educational problems.⁶ Data from a variety of family practice settings in Colorado indicate that although only 1.8 percent of pediatric encounters involved a "psychological problem" (learning, social, or behavioral problems), these were among the top ten

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pediatric diagnoses and were felt to be important because of the strategic role played by the family physician in identification and follow-up.⁷ Compiled from a variety of sources, Table 1 lists the estimated prevalence of the most common types of childhood developmental problems in the general population of children.

Despite the importance of training in child development and behavior for family physicians, several barriers have impeded development of effective training programs. First, the breadth and depth of pertinent literature from psychiatry, psychology, education, and other disciplines have made the content difficult to contain. Second, an appropriate role for the family physician has been difficult to define. Third, consultants from such fields as psychology, education, and speech pathology, who are comfortable and compatible with their physician colleagues in family practice, have been hard to recruit. Finally, the difficulties in establishing beyond doubt the effectiveness of intervention make some physicians reluctant to become involved with these areas.

When training in child development and behavior occurs in the family medicine curriculum, it is usually on ambulatory pediatrics rotations or in behavioral science experiences and may involve little more than a superficial introduction to behavioral therapy and developmental milestones. These areas deserve greater attention through a systematic approach, attainable within many family practice residency programs.

Child Development and Behavior: Role of the Family Physician

The family physician who follows a mother during pregnancy, delivers the baby, and cares for the child and family is in a unique position to influence the health and development of the child and family. In dealing with problems of child development and behavior, the family physician has five principal goals: (1) primary prevention of developmental disorders, (2) early detection of developmental disorders (secondary prevention), (3) referral of children with problems for assessment and intervention to minimize handicaps (tertiary prevention), (4) helping families understand their child's

Table 1. Common Developmental or Behavioral Disorders: Estimated Incidence in Children

Disorders	Incidence
Behavior problems	7-14/100
Learning disabilities	5/100
Mental retardation	3/100
Child abuse and neglect	1-4/100
Epilepsy	1/100
Cerebral palsy	5/1,000
Blindness	2/1,000
Deafness	2/1,000
Childhood psychosis	4/10,000
Infancy:	Colic, sleep disturbances, feeding problems, tantrums, toileting problems, attachment problems
Childhood:	Discipline problems, hyperactivity, enuresis/encopresis school problems, psychosomatic symptoms
Adolescence:	Psychosomatic symptoms, sexual acting out, pregnancy, drug abuse, school failure, suicide gestures, eating disorders (anorexia, obesity, bulimia)

problems and adjust to caring for him or her, and (5) providing ongoing follow-up of the child and family.

Primary prevention strategies begin before pregnancy and include family planning counseling to prevent unwanted pregnancy. During prenatal care, in addition to efforts to minimize obstetrical and neonatal risks (which include attention to maternal nutrition, avoidance of teratogens such as alcohol, prevention of congenital infections such as rubella, counseling with regard to risks of genetic disorders such as Down's syndrome in women over 35 years, and monitoring the health of the mother with provision of appropriate perinatal care), the family physician provides education to help prepare parents for delivery and for their parenting role. During delivery, attention is paid to minimizing obstetrical risk as well as seeking to enhance the family-centered components of birth, such as involvement of the father or other support-

ive companion, early contact between mother and infant, and support of breastfeeding, rooming-in, and early discharge. During well-child care, attention is directed to education and anticipatory guidance concerning the infant's development, the family's adjustment to parenting, and efforts to reduce common forms of morbidity, such as childhood accidents or preventable infections.

Secondary prevention involves early identification of developmental and behavioral problems during visits for well-child and sick-child care. Methods include observing the mother-child interactions in the perinatal period, screening for phenylketonuria (PKU) and hypothyroidism, and using history, physical assessment skills, and developmental screening instruments to identify problems early.

When, as a result of screening, a developmental problem is suspected, the family physician must know how to obtain appropriate diagnostic assessment. Although he may provide some assessment and management of common behavior problems himself, usually he will use consultants to help evaluate these problems. On rare occasions, the physician may ask consultants to take over much of the management. The family physician should be aware of the range of consultants available, how to interpret their diagnostic findings, and how to support their recommendations for early intervention through a knowledge of resources available in the community.

Families look to the family physician to help interpret diagnostic findings and advise them about treatment for their child. To provide this counseling and advice, the family physician needs to be familiar with how families react to the knowledge that their child is handicapped and how to support the family in grieving as they learn to adjust to caring for their child.

Finally, the family physician has a role in ongoing follow-up of the child and family, which requires some familiarity with the natural history of the more common developmental disabilities, with available treatment programs, and with the stages of family adjustment. Families of handicapped children frequently report communication problems with their primary physicians, which underscores a training need. Families fault their physicians in two areas: (1) for failing to respond to parental concerns and detect problems early ("he told me I was just an anxious parent and not to

worry'') and (2) for failing to provide accurate information clearly and sensitively on the nature of the problem and what treatment options were available ("he told me what was wrong, but not what we could do; he was too negative and pessimistic and took away our hope; he didn't seem to care about our child'').

Goals and Objectives for Training

The goals of child development and behavior training are to make residents familiar with applied child and family development, components of developmental diagnosis, the appropriate use of consultations, and community treatment resources. In addition, this training should make residents skilled at performing and interpreting developmental screening, interpreting diagnostic findings, counseling families about their child's development, both normal and abnormal, and managing simple and common behavior problems. Finally, this training should instill an attitude of sensitivity to developmental and behavioral issues in the conduct of medical care to normal and handicapped children and their families. Four chief content areas for training have been identified: (1) normal development, (2) developmental screening, (3) developmental diagnosis, and (4) management of common developmental and behavioral problems (Table 2).

Methods of Instruction

Initially, a one-month elective in child development and behavior was offered jointly to family practice residents and pediatric residents. In the first 18 months, six family practice residents and eight pediatric residents took the elective and found the experience to be worthwhile. This year certain components will be incorporated into the required behavioral science rotation; residents interested in pursuing greater depth will take the elective. Regardless of format, four principal instructional methods are used to teach child development and behavior (Table 3).

Table 2. Content Areas: Child Development and Behavior**Normal Development**

Overview of developmental stages and milestones of children and families (including family adjustment to pregnancy, bonding, temperament, separation)

Components of development: cognitive, communication, motor, social-emotional

Miscellaneous issues: the anxious parent, adoption, daycare, impact of hospitalization, death, divorce

Developmental Screening: Office Techniques

Developmental and behavioral history and physical examination

Techniques of developmental screening (including vision, hearing, and administration of standardized screening instruments such as Denver Developmental Screening Test and Prescreening Developmental Questionnaire, Denver Articulation Screening Test)

Techniques of observing family interactions and behavior

Developmental Diagnosis

Components of medical assessment (developmental history, genetic history, neurodevelopmental examination, use of medical specialty consultants and laboratory tests)

Components of functional assessment (psychoeducational, motor, language, audiology, etc: techniques, consultants, diagnostic approaches, interpretation of findings, interdisciplinary process)

Interpreting diagnostic findings to parents (how to facilitate parental understanding, how to deal with their emotional reactions)

Community resources for intervention

Familiarity with role of physician in follow-up of child and family (medical complications, developmental and behavioral issues, family adjustment)

Management of Selected Common Disorders

Developmental disorders: cerebral palsy, mental retardation, learning disabilities

Behavior problems: colic, hyperactivity, school phobia, enuresis

Child and family adjustments to chronic illness: asthma, epilepsy

Table 3. Instructional Methods

Self-instruction: one to two half-days per week

Reading: text, journal articles

Videotapes: ("Amazing Newborn," Denver Developmental Screening Test proficiency tape, "Pediatric Developmental Diagnosis")

Problem-solving case studies (developed locally)

Tutorials with course preceptors: two hours per week

Case studies, review of readings, exploration of resident's feelings

Clinical Experiences: four to six half-days per week

Multidisciplinary developmental assessment clinic

Office-based assessment clinic

Genetics or birth defects clinic

Well-baby clinic

Optional clinics: child psychiatry, adolescent, neurology, high-risk newborn follow-up

Site visits to community treatment programs: one half-day per week

Infant stimulation program

Developmental preschool

Special education class, Individual Educational Plan Conference

Institution for retarded and group home

Interview with parents of handicapped children

Note: times refer to one-month elective format

Self-Instruction Activities

A variety of texts in child development and behavior have recently appeared,³ which are combined with journal articles into a core bibliography (Appendix 1).

Videotapes on developmental topics, such as the competence of infants ("The Amazing Newborn"),⁸ and on selected topics of developmental assessment ("Pediatric Developmental Diagnosis")^{9,10} reduce the amount of reading and faculty time. Several case studies have recently been developed that demonstrate problem solving and simulate the workup of cases at savings of resident and faculty time. Because of the extent of the readings and complexity of the material, it was necessary to provide one or more tutorials lasting about one hour each, one to two times per week with the course preceptors. These tutorials serve to review readings, summarize key points, review difficult aspects of cases seen, and deal with the resident's feelings, especially concerning parent counseling. The chief purpose is to integrate readings with clinical and personal experiences.

Clinical Experiences

Several types of clinical experiences have been utilized. First, the residents are exposed to a multidisciplinary child evaluation clinic, where complex cases are evaluated in depth by multiple specialists, culminating in a staff conference for synthesis of findings and a parent conference with feedback from observation or videotape. Such a clinical setting provides an in-depth learning opportunity as well as exposure to an effective multidisciplinary process. Such clinics are located in regional developmental evaluation centers, universities, regional birth defect clinics, or high-risk newborn follow-up programs. It is important to stress that although one to two cases a month are generally sufficient, scheduling should ensure that cases be seen from start to finish and the resident serve as an active participant in evaluation, staff conference, and parent conference.

A second type of clinical experience is found in the office-based primary care setting, usually with a practicing pediatrician trained in child development and behavior who sets aside one or more

half-days per week to evaluate and follow children with developmental, school, or behavior problems, usually in conjunction with a consulting psychologist. This clinical setting offers a larger number of cases, more common and less complex problems, and an approach that is appropriate for a practice setting.

Other clinical settings that provide useful experiences include well-child clinics, child psychiatry clinics, child neurology clinics, and genetics or birth defect clinics.

Community Treatment Programs

Visits to the community expose the resident to the range of treatment resources that occur outside the medical setting. These resources include home-based infant stimulation programs, developmental preschools (where normal children and disabled children are observed side by side), public school special education classes, institutions for the mentally retarded, and group homes for handicapped children and adults. At each site someone should be identified as the residents' guide, introduce them to the program, provide observational activities, and answer their questions. If it can be arranged, residents should visit programs that serve those children they are seeing in a developmental clinic or in their practices. It is extremely useful to have residents meet with well-adjusted parents of handicapped children away from the clinic, over coffee, to make residents more aware of the issues families face in raising a handicapped child.

Conclusions

An attempt has been made to develop a one-month elective in the third year of family practice training. Limited experience to date has met with success in that residents are finding the skills and content relevant, personally rewarding, and worth the time of a one-month elective. Further experience and evaluation is underway to determine whether such training is best conducted in an

elective format or whether it should be incorporated into required behavioral science or pediatric rotations.

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Appendix: Child Development and Behavioral Pediatric Elective: A Core Bibliography

Normal Development

Overview

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