Perspective

Research on Child and Adolescent Mental Disorders

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BY CONSERVATIVE ESTIMATE 12 PERCENT OF CHILDREN under age 18 suffer from a serious mental disorder (*1*). This represents more than 7.5 million youngsters in the United States. They encompass conditions ranging from depression, crippling states of anxiety, attention deficit, and hyperactive or antisocial behavioral pathologies to developmental impairments that limit ability to think, learn, form social attachments, or communicate effectively with others. According to the Office of Technology Assessment, only 2.5 million of these children are receiving treatment. Even for those children now receiving help, therapies for a substantial number are not as effective or as lastingly beneficial as desired. Autism and other pervasive developmental disorders often begin in infancy and remain as lifelong disabilities. Billions are spent each year on costs of treatment and services. Beyond these direct costs are the economic costs of foregone adult earnings and, of course, the incalculable emotional burden of human suffering, perhaps most poignantly exemplified in adolescent suicide.

These facts indicate a need for increasing the availability and accessibility of treatments for mentally ill children. They also highlight the need for a better understanding of the determinants of mental disorders of childhood and adolescence as a means of developing specific and effective treatments for children who need services, as well as for preventive interventions. No field has a greater need to recruit, train, and support researchers than the field of child and adolescent mental health.

The Institute of Medicine of the National Academy of Sciences (IOM-NAS) recently released a report (*2*) that describes the pressing needs and the historic causes of lack of research support for this field. There is a long history of concern and national consensus reports on child mental health problems dating from the first White House conference in 1909. However, this new IOM-NAS report commissioned by Dr. Lewis Judd, director of the National Institute of Mental Health (NIMH), is the first to focus exclusively on research. The study was focused on diagnosable childhood mental disorders and did not include the broader indicators of social problems. Phenomena such as drug abuse, teen pregnancy, and homelessness were discussed only insofar as they are consequences of, or risk factors for, mental disorder.

The current explosion of knowledge in both the neurosciences and the behavioral sciences has stimulated explorations of the underlying causes of child mental illness. Basic research in molecular genetics, neurophysiology, neuroanatomy, cell biology, and the newer technologies of brain imaging now offers the means of studying, with safety, details of brain function that once seemed impossible. Behavioral sciences provide concepts and data in areas of cognition, emotional development, learning, and motivation for normative as well as dysfunctional interpersonal behavior. In some instances, specific types of brain dysfunction can be linked to disordered behavior. Unfortunately, within each discipline, the focus has been primarily on adults. This is partly because of the complexities inherent in normal development and also because of the ethical and pragmatic issues posed by clinical research with minors. Only a few scientists ask whether adult findings apply to children. Few scientists explore the patterns of change during growth and development, and even fewer work in interdisciplinary teams or in clinical research with a developmental perspective.

Despite limited resources, substantial progress has been made during the past decade. The results of this research give "increasing reason for optimism that many of the major childhood mental disorders are responsive to treatment," according to the IOM-NAS report. A rapidly expanding array of medications and psychological treatments are now being applied successfully. Researchers are demonstrating the feasibility of classifying and assessing specific mental disorders in children and adolescents. Only in the past decade have major depressions in childhood been characterized and appropriate therapies specified. Investigators have evidence that various biological, psychological, social, and environmental factors are associated with specific disorders. Genetic factors have been implicated in conditions such as Tourette's syndrome, autism, and certain learning disabilities. Biological insults such as brain injury or fetal alcohol syndrome place children at risk for predictable cognitive deficits and behavioral disturbances. Risk factors associated with some conditions of poverty have been correlated with increased prevalence of mental illness in children. In all of these areas much remains to be done. However, now as never before, there are powerful concepts and methodological tools to guide the research.

The IOM-NAS committee was also charged with developing a comprehensive, national-capacity building plan to consolidate gains and accelerate the rate of progress of future research. Progress is most threatened by the shortage of researchers in the field. For example, of the 4500 trained child psychiatrists, fewer than 100 devote 30 percent of their time to research. A similar research shortage holds for pediatrics, social work, clinical child psychology, and other relevant disciplines. Key elements of the IOM-NAS plan include increasing career stability for researchers specializing in child mental health, fostering research training programs to recruit those interested in child mental disorders, expanding support for research in relevant disciplines, both basic and applied, and creating an institute-wide consortium within NIMH to implement and monitor the national effort. There was consensus for a major new funding initiative in a phased 5-year plan that features a first-year surge of sharply increased support. The initial funding would be directed at the backlog of excellent peer-reviewed but unfunded research, permit initiatives in "hot" areas of scientific opportunity, and build the necessary infrastructure to sustain a long-term research effort.

The IOM-NAS report underscores the importance of developing our research capacity to understand and treat mental disorders of childhood that in the past have been ignored or deemed to be intractable. It proposes positive steps for correcting a long-standing imbalance in research priorities.

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REFERENCES

1. Office of Technology Assessment, Publication No. OTA-BP-H-33 (U.S. Government Printing Office, Washington, DC, 1986).
2. National Academy of Sciences–Institute of Medicine, "Research on Children and Adolescents with Mental, Behavioral and Developmental Disorders: Mobilizing a National Initiative" (National Academy Press, Washington, DC, 1989). The study was conducted by a 19-member interdisciplinary committee, James Leckman, chair, and Glen Elliott, vice chair. The Institute of Medicine staff were Frederic Solomon, Division Director, and Cleopatra H. Caldwell, Study Director.