

RESEARCH OPPORTUNITIES

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"Research Opportunities" is a regular feature of the Journal that attempts to provide readers with relevant information regarding funding opportunities, policy changes, and future initiatives of the major sources of support for basic and applied research in spine and musculoskeletal rehabilitation. We welcome reader responses and suggestions concerning future topics for this section. This issue's section provides a description of the National Center for Medical Rehabilitation Research, a newly created unit of the National Institutes of Health, established in 1990 to provide leadership in the conduct and support of research in medical rehabilitation.

NATIONAL CENTER FOR MEDICAL REHABILITATION RESEARCH

The 1990s have already seen a flurry of Congressional legislative activity that reflects a new focus on the political, medical, and economic needs of millions of Americans with disabilities. In July 1990, the Americans with Disabilities Act (ADA) was signed into law. The ADA has been hailed as the first major piece of civil rights legislation in a quarter century. The ADA prohibits discrimination based on congenital or acquired disability in the areas of employment, public accommodations, transportation, and telecommunications. In addition to the ADA, the Developmental Disabilities Assistance and Bill of Rights Act (DD Act) reauthorized a variety of programs providing an array of services to individuals with developmental disabilities. Similarly, the Individuals with Disabilities Education Act (IDEA) reauthorized federal support for state special education programs, with new initiatives focusing on the provision of assistive technology and other services for adolescents and young adults with physical disabilities.

In addition to these new civil rights and service initiatives, 1990 also saw Congress clearly assert its intent to make rehabilitation research a distinct, highly visible priority through the creation of the National Center for Medical Rehabilitation Research (NCMRR). The Center was established by

the National Institutes of Health (NIH) Amendments of 1990 (PL 101-613), signed into law in November 1990. The NCMRR is a component of the National Institute of Child Health and Human Development.

The Need for a National Medical Research Center

Rehabilitation-related research has long been administered and supported by numerous federal agencies. NIH expenditures for medical rehabilitation research totaled \$110.9 million in fiscal year 1988, \$119.3 million in fiscal year 1989, and \$124.9 million in fiscal year 1990. The Department of Education's National Institute of Disability and Rehabilitation Research (NIDRR) funds an additional \$60 to \$70 million in research through its network of Research and Training Centers, Rehabilitation Engineering Centers, assistive technology programs, and other creative research programs. The Centers for Disease Control (CDC) also support \$3 million in rehabilitation research in the area of disability prevention and control.

The NCMRR was established in response to concerns that the effectiveness of these research efforts has been severely limited by their decentralization and lack of coordination. For example, in 1989, NIH medical rehabilitation research efforts were supported by 13 different institutes and 2 centers. With over a dozen units conducting intramural and supporting extramural research, duplication of effort and significant programmatic voids are inevitable. Furthermore, NIDRR and CDC research efforts are focused almost entirely on applied research activities. These agencies fund "basic" research efforts only when necessary to support applied clinical efforts.

Two reports published before the establishment of the NCMRR emphasized the need for a centralized, separate administrative entity within NIH to provide overall leadership and coordinate research planning. The 1989 *Report of the Panel on Physical Medicine and Rehabilitation Research* found that no single agency was accountable for defining a research mission, setting priorities, and responding to consumer needs. Although recognizing the excellence of individual programs at NIH, the panel felt that the multidisciplinary

nature of medical rehabilitation research required the leadership of a single administrative agency. The report also noted the need for additional research on the outcomes of rehabilitation interventions and the impact of treatment on patients' quality of life.

The 1990 *Report of the Task Force on Medical Rehabilitation Research*, representing the views of more than 100 experts on nine focus panels, identified a multidimensional research agenda focusing on the biological, social, behavioral, and psychological aspects of medical rehabilitation. This report documented a clear need for an administrative unit that will fund generic research programs and directly target currently neglected areas for greater investigation.

National Institutes of Health Amendments of 1990

In the 1988 NIH reauthorization process, legislation was introduced in both the House and Senate that proposed the creation of a freestanding center for medical rehabilitation research within NIH. This proposal was not contained in the final 1988 reauthorization bill. However, these initiatives paved the way for the creation of NCMRR in 1990.

The NIH amendments of 1990 (PL 101-613) established the NCMRR as a unit within the National Institute for Child Health and Human Development. The Amendments state that the purpose of the center is the

... conduct and support of research and research training (including research on the development of orthotic and prosthetic devices), the dissemination of health information, and other programs with respect to the rehabilitation of individuals with physical disabilities resulting from diseases or disorders of the neurological, musculoskeletal, cardiovascular, pulmonary, or any other physiological system" (Section 452 [b]).

The law contains a provision that requires the center to develop and transmit a national research plan for medical rehabilitation research to Congress and the President within 18 months of the passage of PL 101-613. The plan must identify current research activities supported by the federal government, the need for additional research, and recommended priorities for such research.

The amendments stipulate that the center may support clinical trials and research regarding model systems of medical rehabilitation. Multidisciplinary research efforts, with the NCMRR working in cooperation with more than one agency, are highly encouraged. The center may also support medical rehabilitation research and training centers. In short, the NCMRR has been developed to conduct and support a complete array of research activities and, if adequately funded, is positioned to provide a significant boost to the entire field of physical medicine and rehabilitation.

Implications for Spine and Musculoskeletal Rehabilitation Research

Medical rehabilitation has grown significantly during the past decade. Breakthroughs in materials, the development of new technologies, and the emergence of a cadre of highly skilled specialists have all contributed to significant advances in spine and musculoskeletal rehabilitation. The creation of the NCMRR should greatly enhance this effort. The most significant contribution of the center may be its ability to dramatically increase national awareness of the potential contribution of medical rehabilitation research. Hopefully, it will serve as a focal point for developing consensus regarding future research needs and a vehicle for organizing fiscal support.

One of the major activities of the NCMRR will be to enhance medical rehabilitation research training. In establishing the NCMRR, Congress was fully aware that the nation's health care system is not prepared for the anticipated increase in the number of persons with disabilities. Physical medicine remains one of the few medical specialties with a shortage of physicians. Crucial personnel shortages restrict the ability of the medical rehabilitation community to provide essential clinical services, as well as to prepare to meet future challenges. The creation of the NCMRR is a promising development that may increase the number of new and established investigators entering the field and expand the diversity of research specialties.

It is encouraging to note that the design of the NCMRR recognizes the multidisciplinary nature of the rehabilitation process. The 1990 *Report of the*

Task Force on Medical Rehabilitation Research identified research needs in the areas of musculoskeletal disorders, biomechanics, ergonomics, neurological dysfunction, geriatrics, and other fields. The administrative structure of the center promotes close collaboration with other related agencies, including the National Institute of Arthritis and Musculoskeletal and Skin Diseases, the National Institute on Aging, the National Institute of Disability and Rehabilitation Research, the Department of Veterans Affairs, and numerous other agencies. Rapid and significant advances in all segments of the medical rehabilitation community and the complexity of the spine and musculoskeletal rehabilitation service delivery system demand the coordination of multiple research efforts.

Current and Future Activities

The NCMRR has begun to support a variety of medical rehabilitation research activities through a combination of specialized and ongoing program announcements. It is anticipated that the center will also shortly begin to initiate intramural research efforts in support of its 1992 comprehensive research plan. Additional information regarding the activities of the NCMRR may be obtained by contacting the National Institute for Child Health and Human Development, 9000 Rockville Pike, Bethesda, MD 20892; (301) 496-3454 or (301) 496-5133.