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AN EDITORIAL

Research on What?

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It has been said since ancient times: "Necessity is the mother of invention." To what extent have the real needs of individuals with disabilities actually defined the agendas of professional researchers working in the rehabilitation field? Are these needs doing what they are supposed to do—are they actually giving birth to new methods and devices useful to and valued by individuals with handicapping conditions? Surely they do it some of the time, but an informal tour of several organizations receiving government "handicapped" R&D funds revealed that a number of the products of research and development are simply not being used. Is this because the "necessity" referred to above is one step removed in the case of R&D—where the scientist's necessity is somehow different from the necessity faced by an individual with handicaps? The answer is, partly, yes. A scientist's "necessity" is defined by a complex calculus of factors which include his or her background and interests, estimated probability of success, available resources (e.g. patient case load), funding availability, what is likely to be published, personal interest, a sense of significance of anticipated results, etc.

Investigation shows that, to date, "necessity" has been far less clear to professionals one step removed from disabilities than to the disabled themselves. This lack of clarity has not been limited to researchers but includes government funding agencies as well. To say this is not to indict researchers or government officials, but is rather a statement of the importance of all professionals choosing research topics having objective data on the true needs of individuals with disabilities.

Unfortunately, such data are scarce, and therefore this Journal will place continuing emphasis on the development and publication of articles that present objective data on real unresolved problems of real handicapped individuals, such as Hoaglund et al., "Evaluation of Problems and Needs of Veteran Lower-Limb Amputees," published in our last issue (Vol. 20, No. 1, July 1983).

Other past and current efforts to pin down the real needs of the disabled are worth considering.

In 1976, the Committee on Prosthetics Research in the Veterans Administration, the Assembly of Life Sciences, the National Research Council, and the National Academy of Sciences, Washington, D.C., prepared a joint report on specific areas

where research was needed in classical prosthetics/orthotics and mobility devices. Research needs identified include sensory feedback devices embedded in upper-limb prostheses, prosthetic skin, and voluntary control of a prosthesis by an above-knee amputee. Mobility devices included the need for curb-and-stair-climbing wheelchairs.

Almost eight years later, these specific needs have not been met.

More recently, in an effort to link research more effectively with the true needs of the handicapped, Margaret J. Giannini, M.D., the Director of the VA Rehabilitation Research and Development Service, has joined in the sponsorship of "state-of-the-art workshops" in partnership with the Institute of Handicapped Research (NIHR), Rehabilitation Engineering Society of North America (RESNA), Paralyzed Veterans of America (PVA), and the Disabled American Veterans (DAV). Subjects of these workshops included Functional Electrical Stimulation (October 12–13, 1982, Washington, D.C.), Wheelchair III (March 25–27, 1982, San Diego, Ca.), Blindness I (May 6–7, 1982, Palo Alto, Ca.); Blindness and Vision (May 25–26, 1982, Washington, D.C.); Audiology and Speech Pathology (February 16–17, 1983, San Francisco), and Prosthetics/Amputation (April 27–28, 1983 with followup June 2, 1983, Washington, D.C.).

Those workshops were designed to identify areas of research that have two characteristics. The first was that within each area will be found a significant unmet need of disabled veterans. Areas were also sought that would yield the most benefit in the shortest period of time to individuals with handicapping conditions, and an effort was to be made to define areas where significant headway is readily attainable.

The conferees or participants in each of these workshops were selected to include veterans with service-connected disabilities, representatives of service organizations, disabled consumers, leading researchers, officials from government and private organizations, health-care deliverers, and researchers and clinicians who have a comprehensive knowledge of existing practices and the current state of the art in respect to their own fields.

From these workshops, research and development priorities emerged which are useful in at least two ways: First, they provide investigators with information, based on the deliberations of leading national thinkers, about potential research that is both needed and likely to yield fruitful results. Second, they define areas for which funding can most readily be obtained from the VA Rehabilitation R&D Service.

R&D priorities emerged as follows:

PROSTHETICS/AMPUTATION (1) Lower-limb prostheses. (2) New and improved prostheses and orthoses. (3) Diagnostic and surgical procedures (including maxillofacial and dental prostheses). (4) Internal joints/ implant prosthetics.

SPINAL CORD INJURY (1) Surgical procedures. (2) Mobility (wheelchairs and automotive adaptive equipment). (3) Manipulative devices (environmental controls). (4) Neuromuscular control.

SENSORY AIDS (1) Blindness and visual impairment. (2) Deafness and hearing impairment. (3) Speech impairment. Three concurrent research programs are encouraged: low-vision aids, orientation and mobility, and communication/vocational rehabilitation.

For complete information on needs in the three research priority areas, you may request Research and Development Letters, DM&S IL 15–83–11, Priorities in Prosthetics/Amputation; IL 15–82–4, Priorities in Spinal Cord Injury; and IL 15–83–12, Priorities in Speech and Hearing Impairment. Write to: VACO, Rehabilitation Research and Development Service (153), 810 Vermont Avenue, N.W., Washington, D.C. 20420.

The VA continues to welcome input from the service organizations in a joint effort to establish overall national goals for individuals with handicapping conditions. We also invite volunteers, the private sector, and private industry to help us achieve the goals necessary to ensure a handicapped person a meaningful and equal place in an able-bodied world.