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Hand Rehabilitation and Occupational Therapy

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This issue of The American Journal of Occupational Therapy devoted to hand rehabilitation occurs at a time in the history of our profession when our services in this area are needed more than ever before. It is astounding to consider that there are approximately 16 million upper extremity (UE) injuries each year in this country, accounting for about one third of all injuries in industry and on farms. Disease and congenital anomalies continue to take their toll: 3 percent of the age group from 18 to 79 years suffer significant UE involvement caused by rheumatoid arthritis, and 16 percent of congenital anomalies involve the upper extremities. Of the survivors of severe strokes, 70 percent are eventually able to walk, but only 15 percent achieve useful hand function. As occupational therapists we are in a unique position, by virtue of our training, to appreciate, evaluate, and remediate the physical and psychological effects that hand dysfunction can have on the whole person.

Our involvement in hand rehabilitation dates back to the beginning days of our profession and is a natural outgrowth of our emphasis on purposeful activity as a modality of treatment. Active use enables the brain to adapt to permanent deficits, and the mind to experience joy at overcoming the effects of an injury or disease.

Currently, occupational therapists are involved and highly visible in all phases of hand rehabilitation. As advances are made, it becomes apparent that more fields of knowledge need harvesting. Among those who have a special interest in hand rehabilitation are emerging therapists with special expertise in splinting, biofeedback, sensibility evaluation, physical capacity evaluation, arthritis, central nervous system (CNS) disorders affecting the upper extremities, and rehabilitation of the industrial worker including work simulation, tool adaptation, and job modification to compensate for residual deficits. All of these special skill areas fall within the realm of our goals of remediation, restoration, and adaptation.

From current trends one can anticipate that the future of occupational therapy in hand rehabilitation will see the further development of several areas of treatment. Advances in hand surgery, such as the active tendon, microsurgery, and replantation, will require more sophisticated functional evaluations, amenable to quantification, to help determine the benefits of such treatments. Through on-site job analysis and modification we have a natural role in the prevention of industrial hand injuries and job-related upper extremity disorders, including carpal tunnel syndrome, thoracic outlet syndrome, and DeQuervain's disease, but that role will require more precise definition and documentation before it is widely recognized. Third-party payment, peer review, and a professional quest for knowledge will require increased documentation of the efficacy of splinting, purposeful activity, and work simulation in promoting a faster and qualitatively better return of function. The effects of CNS dysfunction and chronic disease will continue to be among our greatest challenges in upper-extremity rehabilitation.

To meet these challenges undergraduate programs must continue to stress the physiological and psychological effects of severe hand dysfunction. And, those with a special clinical interest in the area must continue to harvest and share their knowledge as demonstrated by this issue of The American Journal of Occupational Therapy. Also, if we are to continue to be recognized for our unique contributions to this field, we must keep pace with developments in other specialty areas concerned with hand rehabilitation. The American Society of Hand Therapists, founded in 1977 by three occupational therapists and two physical therapists, maintains liaisons with the AOTA, APTA (American Physical Therapy Association), and the ASSH (American Society for Surgery of the Hand), for discussion of issues of mutual concern and to share information about hand rehabilitation. If these avenues are traveled, we will maintain our preeminence in hand rehabilitation and our past and present will be a springboard to a future of even greater achievements.

REFERENCE