HAND REHABILITATION IN OCCUPATIONAL THERAPY

FLORENCE S. CROMWELL
JANE BEAR-LEHMAN

EDITORS
Hand Rehabilitation in Occupational Therapy
The Occupational Therapy in Health Care series,
Florence S. Cromwell, Editor

• The Changing Roles of Occupational Therapists in the 1980s
• Occupational Therapy Assessment as the Keystone to Treatment Planning
• Occupational Therapy and the Patient With Pain
• Occupational Therapy Strategies and Adaptations for Independent Daily Living
• The Roles of Occupational Therapists in Continuity of Care
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• Sociocultural Implications in Treatment Planning in Occupational Therapy
• Sensory Integrative Approaches in Occupational Therapy
• Hand Rehabilitation in Occupational Therapy
Hand Rehabilitation in Occupational Therapy

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ABOUT THE EDITOR

Florence S. Cromwell, MA, OTR, FAOTA, is a well known and respected educator, clinician, administrator, and leader in the occupational therapy profession. She was President of the American Occupational Therapy Association for six years, 1967-1973, and she has been involved in a number of professional activities at state and national levels for 30 years. From 1970-1976, she was Associate Professor in the Occupational Therapy Department at the University of Southern California, Los Angeles, and Acting Chair for the last three years. Subsequently, she returned to clinical practice as Associate Director of the Los Angeles Job Corps in charge of Vocational Education. A consultant in occupational therapy program development and education since 1979, she has a rich background in health care concerns.

Jane Bear-Lehman, MS, OTR, is currently Training Specialist in the post-graduate occupational therapy program at New York University and an associate with Hand in Hand Rehabilitation, a private hand therapy practice in Long Island, New York. She was formerly Assistant Professor in the occupational therapy program at the University of Toronto. Ms. Bear-Lehman is a member of the American Society of Hand Therapists, and she serves as that organization’s liaison to the American Occupational Therapy Foundation’s (AOTF) Research Advisory Council.
Hand Rehabilitation
in Occupational Therapy
With this issue, Volume 4 of OTHC comes unexpectedly to a close. Hand Rehabilitation is a popular topic and thus the numbers of papers generated have necessitated a double issue, for Fall/Winter 1987. We think the collection will become a valuable resource to all clinicians, as well as to educators and students. The authors represent a broad segment of those practicing today who are concerned with the treatment of disabled hands. Each is a skilled practitioner. I as “resident editor” am much indebted to Jane Bear-Lehman, my cohort for this effort. As Co-editor Jane provided the special knowledge of content, current practice and people that produced the quality of manuscripts now presented to you. In her introduction you can read more of what we have tried to produce for you.

As this volume ends it is time also for me to do some acknowledging of the many others who have aided and abetted my efforts during the four years I have served as editor. To you, our authors, who risked your publishing hopes in our hands, we are particularly indebted. We hope the experience has been one that persuades you to continue your writing efforts. To the members of the editorial board my grateful thanks for your hard work, timely completion of “assignments” and excellent support for the journal. Your ideas have been invaluable . . . your help inestimable.

As you know, many others who serve as reviewers get little if
any recognition in the process. They lend their special skills to a journal . . . because of their expertise. For those who served as manuscript specialist reviewers or as reviewers of other publications to be shared in our Book Review section, I tip my hat. Many of you have served numerous times, on short notice and with no complaints. You are an editor's delight. MUCHAS GRACIAS!

Ann Hyde
Elise Holloway
Elizabeth J. Yerxa
Elizabeth Wyckoff
Betty Snow
Barbara T. Engel
Michal Atkins
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Stephanie Day
Diane Parham
Jane T. Herrick
Janith M. Hurff
Mary M. Evert

And doubtless others whose names my computer fails to produce at this moment. . . . To each of you, my heartiest thanks.

Finally, as I am completing my role as Editor of OTHC, I want to welcome the new Editor, my friend and colleague, Jerry A. Johnson, EdD, OTR, FAOTA, of Denver, Colorado. Well-known to you all as a long time leader in occupational therapy, Jerry brings rich skills and insights to this publication. We all look forward to her leadership in her new role.

As editor I am responsible for one additional issue, which because of the current double issue, has been put into Spring 1988, The Occupational Therapy Manager's Survival Handbook. Watch for it it promises to surprise you with its case approach to learning all those skills you never hoped to need. And do keep
your letters and comments coming, to both Jerry and to me. We are sincerely interested in hearing from you about suggested themes, ideas for content features, names of authors, whatever. And thank you for being there, fine friends and readers. Your comments have been encouraging and the fuel that has kept this project going strong.

Florence S. Cromwell
Editor
In This Issue

Inherent in the education of occupational therapists are the values of first appreciating, then evaluating and remediating through the use of “occupation” the physical and psychological effects which disease and injury bring to those so affected. As professionals, occupational therapists devote their efforts to perfecting therapeutic skills in order to enable patients to achieve maximum adaptation to the demands of their personal activities of daily living. A disease or injury that affects the spontaneous, reliable use of one’s hand(s) impedes achievement of success in purposeful activity.

Persons with this kind of disability—and their numbers are growing in our fast, technology based society—need and challenge occupational therapy services as much as any patient group seen by occupational therapists. The incidence of injuries directly affecting the hand has risen dramatically in recent years; the survivor rate of those with congenital, systemic or neurological afflictions of the upper extremity also is producing significant numbers of persons needing help because of dysfunction in daily use of their hands. On the positive side, advanced surgical techniques now have begun to open new possibilities for both restoration and remediation of hand function.

Over the years, occupational therapists, quite naturally, have taken a special interest in developing specific evaluations and treatment procedures for the hand impaired population. The purpose of this issue of OTHC on Hand Rehabilitation in Occupational Therapy, therefore, is to offer a record of current theories and practical methods of occupational therapy programing for the patient, of any age, with decreased hand function. The content includes hand management discussions for the patient with de-
increased or loss of hand function regardless of cause, be it disease or injury. Further, case illustrations show the ways in which occupational therapists plan programs to incorporate those activities which the patient needs and uses in his daily roles, at home and at work or leisure.

The intent of this two volume issue of *OTHC* is not to provide a primer or a textbook on the scientific base for hand care, but more to offer the practicing therapist a breadth of the current concepts with clinical examples to facilitate problem based learning. The papers presented demonstrate an overview of the current thought and understanding of the basic sciences for shaping the course of hand management. For example, the principles of physiology and histology are drawn on to provide the rationale and to offer an explanation for the basis of wound care, scar management and early intervention treatment protocols. Innovations in hand care are shared as are some of the clinical reasonings and solutions for meeting the new challenges offered. The papers presented cover not only the needs of persons of given diagnostic groups, but also reviews of evaluation and treatment regimens relating hand care to theoretical models in occupational therapy.

In order to share this wealth of ideas and to preserve the writer’s vitality and enthusiasms, I would like to extend special appreciation to those members of the *OTHC* Editorial Review Board who contributed their time and their direction for this edition. I would like to also extend a special thanks to Lillian H. Parent, Peggy Carter, Elaine E. Fess, and Catherine Trombly for their excellent clinical guidance. Thanks to Vicky Dingillo whose support has made this edition possible.

*Jane Bear-Lehman*
SUMMARY. Occupational therapy for hands has been recognized as a specialty within the profession since the 1940s. The growing numbers of patients with acquired or congenital problems affecting their hands as well as the newer surgical procedures now available to restore lost function has challenged therapists. To manage the highly specialized needs of the complicated hand problems seen in the clinical setting, there is emphasis on perfecting technical skill. Equally required is the ability to remediate not only the physical dysfunction but also the patient's response to this dysfunction. For it is in this holistic approach to patient care that occupational therapy has its true strength in helping to successfully remediate the difficulties of the patient with a hand problem. Practical application of this principle is shown in a case study.

As an organ of touch the hand is adaptable and capable of performing an infinite number of daily living tasks utilizing tools, reach, and grasp. Inherent in the education of occupational therapists are the values of first appreciating, then evaluating and remediating through the use of "occupation" the physical and psychological effects which disease and injury bring to those so
affected. As professionals, occupational therapists devote their efforts to perfecting therapeutic skills in order to enable patients to achieve maximum adaptation to the demands of personal activities of daily living. A disease or injury that affects the spontaneous, reliable use of one's hand impedes achievement of success in purposeful activity.

The number of individuals with hand impairments is growing in our fast technological-based society. This population creates a need for and a challenge to occupational therapy services as much as any patient group seen by occupational therapists. The incidence of injuries directly affecting the hand has risen dramatically in recent years; the survivor rate of those with congenital, systemic or neurological affections of the upper extremity also is producing significant numbers of persons needing help because of dysfunction in daily use of their hands. On the positive side, advanced surgical technique now has begun to open new possibilities for both restoration and remediation of hand function.

HAND CARE AS A SPECIALITY

Hand rehabilitation and surgery as a speciality has been around for at least 40 years mostly due to the foresight of its founder Dr. Sterling Bunnell and the energy of his followers. His purpose for the development of this speciality was to promote better understanding and better professional standards in surgery of the hand. Aware that rehabilitation of the hand required much more than hand surgery, Dr. Bunnell consistently promoted, in his teachings, the development of a speciality team for hand care. This team included the surgeon, the occupational therapist, and the patient.

One of the benefits of this form of specialization is the achievement of excellent clinical results. The opportunity to have repeated attempts at similar work and to have selective discussions and dialogue with others who share the same focus and skill can facilitate clinical perfection. This specialization can also have its dangers, as it can narrow the vision and magnify the significance of certain factors. The factors that are highlighted are usually the same factors that are valued as an index of profes-