International Handbook of Occupational Therapy Interventions
To be occupied is a fundamental right in every human being’s life. The occupational therapists’ main professional role is to encourage the clients’ occupational performances.

To occupational therapy students, occupational therapists, and members of rehabilitation and health care teams, who are professionally working to improve their clients’ health and wellness, and to stakeholders responsible for the administration of occupational therapy, worldwide.
The World Federation of Occupational Therapists (WFOT) estimates that there are over 300,000 practicing occupational therapists (OTs) in 66 countries. The growth of the profession of occupational therapy in the last 50 years is extraordinary. When I first practiced occupational therapy in the Brooklyn Day Hospital in New York City in 1958, there were about 4000 OTs in the United States and a few more thousand in the rest of the world. The countries of the former British Commonwealth, Scandinavia, and the United States dominated practice. Most OTs worked in hospitals either in psychiatric or long-term chronic care facilities. Occupational therapy was primarily paired with physical and speech therapies as rehabilitation professions. The modalities used in practice were mainly arts and crafts and creative media. Now, in 2009, the profession of occupational therapy has expanded its concepts, intervention modalities, and scope of practice.

This handbook represents the coming of age in global occupational therapy. The authors are distinguished experts in the diverse practice of occupational therapy from around the world. They describe practice from three perspectives: the healer working directly with the patient in preventing, treating, and restoring function; the teacher training the patient in activities of daily living (ADL) skills, assisting the caregiver and informing individuals at risk about how to prevent illness and disease; and the ergonomist in adapting the home, work, and school environments to increase function and prevent injuries. This handbook is comprehensive, and includes a wide range of occupational therapy modalities such as orthotics, universal design, assistive devices, biofeedback, driver education, sensory integration, horticulture, and music. The authors describe interventions for a wide range of individuals with physical as well as psychological disabilities. The emphasis in the book is pragmatic, keeping with the core values of occupational therapy, to help the individual to maintain or increase functional activities through occupation. Evidence-based practice is the guiding principle in deciding what is the best practice. There are many case examples to help the student or clinician understand in a realistic manner how the interventions work and the precautions in therapy.
This is a book for the 21st century that integrates the global practice of occupational therapy with research evidence. It should serve as a ready reference for the student and OT to apply interventions in a holistic framework.

Franklin Stein, PhD, OTR, FAOTA
Founding Editor, *Occupational Therapy International*
Preface

The *International Handbook of Occupational Therapy Interventions* contains an encyclopedic overview of the theoretical core content of occupational therapy and the occupational therapy interventions that are common and used worldwide. The main theme of the handbook is the occupational therapist’s role in *managing, teaching, enabling, and promoting* the clients’ potential to be occupied with desired and meaningful occupations, daily activities, and tasks. The purposes of the occupational therapy services are as follows: *adaptation*, in that the clients’ internal, temporal, and environmental adaptations are expected to improve; *teaching*, in that the clients learn or relearn to perform daily activities; *recovery*, in that the clients experience themselves as being occupied through participation in meaningful activities and tasks that influence their physiologic and psychological healing; and *health and wellness*, in that motor vehicle accidents and accidents at home and at work are prevented, so as to promote the clients’ health. The principles for performing quality assurance and the prerequisites for judging the scientific evidence of the effectiveness of the occupational therapy interventions are presented. The reader is informed about the extensive literature review that constitutes the genesis of this handbook.

Based on 90 authors’ expert knowledge, scientific methodology, and my 40 years of professional work outlined in several case studies, this handbook will be a helpful tool for students, occupational therapists, clinicians on rehabilitation and health care teams, stakeholders, and readers who want a survey of the occupational therapy core content and practice.

Åkersberga, Sweden
Ingrid Söderback
September 2008
Acknowledgments

I want to express my sincere gratitude to the chapter authors, without whose efforts this handbook would not have become a reality. Your expert knowledge has enriched this handbook by demonstrating how occupational therapy is practiced worldwide and how our knowledge contributes to rehabilitation and medical services. My hope is that this handbook is the beginning of a continuing process of documenting our profession’s clinical work.

I am grateful to the clients and patients whose cases are discussed in this handbook. I also thank all the other clients I have worked with in my 40-year career. They have shared their experience of living with disabilities and therefore in an invaluable way have enriched my professional experiences and my life.

I also want to express my gratitude to my former colleagues at the Rehabilitation Clinic of Danderyd Hospital in Stockholm, Sweden: to Gunilla Myrin, for your boundless support through the years and for your contribution of your research about the case of Marie-Louise Huss; to Anette Erikson, Elisabeth Hultman, Lena Krumlinde Sundholm, and Kerstin Wikell, for your interest in my work; and to Marianne Söderström, in memorium.

My sincere appreciation is offered to Professor Franklin Stein, Madison, Wisconsin, for your foreword to this handbook, for your advice and friendship in our work on the journal *Occupational Therapy International* and for introducing me to the world of publishing; and to Professor Karen Jacobs, Boston, Massachusetts, for your sponsorship, your friendship, and our work on the journal *Work: A Journal of Prevention, Assessment, and Rehabilitation*.

I thank my colleagues in the clinical, education, and research areas, for supporting my work aimed at developing our profession. Special thanks are due to Marina Härtull for your comments based on your wide clinical OT experience. I thank my students through the years, whose critical questions and debates have helped me reflect on the core content of occupational therapy.

My thanks are due to the occupational therapists and pioneers of Swedish occupational therapy who introduced me to the profession, especially Gunnel Nelson and Inga-Britt Brännholm in memorium.

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Åkersberga

Ingrid Söderback

October 6, 2008
Contents

Part I  Introduction

1  The Genesis of the Handbook:  
   Material and Methods ................................................................. 3  
   Ingrid Söderback

2  Occupational Therapy: Emphasis  
   on Clinical Practice ........................................................................ 13  
   Ingrid Söderback

Part II  Interventions: The Occupational Therapist Manages  
   and Facilitates the Client’s Adaptation

Introduction

3  Adaptive Interventions: Overview.................................................. 39  
   Ingrid Söderback

Environmental Adaptations

4  Environmental Adaptations for Older Adults and Their  
   Families in the Home and Community ............................................ 53  
   Laura N. Gitlin

5  Housing Adaptations: Current Practices  
   and Future Challenges..................................................................... 63  
   Susanne Iwarsson

Accessibility

6  Ergonomic Interventions for Computer Users  
   with Cumulative Trauma Disorders.................................................. 71  
   Glenn Goodman, Sharon Flinn, and Susan M. Maloney
Accommodation

7 Optimal Positioning: Wheelchair Seating Comfort and Pressure Mapping ......................................................... 83
May Stinson and Shelley Crawford

8 Wheelchair Intervention: Principles and Practice ..................... 91
Åse Brandt and Kersti Samuelsson

Electric Prostheses, Orthotics, and Splints

Milos R. Popovic and B. Cathy Craven

10 Splints: Mobilization, Corrective Splintage, and Pressure Therapy for the Acutely Injured Hand .................. 109
Josephine Man Wah Wong

11 Splinting: Positioning, Edema, and Scar Management Due to Burn Injury .................................................. 127
Megan Simons

Assistive Devices

12 Assistive Devices for Children with Disabilities ...................... 141
Sigrid Østensjø

13 Low Vision Intervention: Decision-Making for Acquiring and Integrating Assistive Technology ..................... 147
Al Copolillo

Universal Design

14 Universal Design: Principles and Practice for People with Disabilities .......................................................... 159
Nancy Rickerson

15 The Design of Artisans’ Hand Tools: Users’ Perceived Comfort and Discomfort .......................................... 167
Lottie F.M. Kuijt-Evers

Temporal Adaptation

16 Temporal Adaptation for Individuals Living with Serious Mental Illness in the Community ......................... 179
Terry Krupa, Megan Edgelow, and Debbie Radloff-Gabriel
# Part III  Interventions: The Occupational Therapist Teaches and the Client Learns

## Introduction

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Teaching Interventions: Overview</td>
<td>189</td>
</tr>
<tr>
<td></td>
<td>Ingrid Söderback</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Problem Solving: A Teaching and Therapeutic Tool for Older Adults and Their Families</td>
<td>205</td>
</tr>
<tr>
<td></td>
<td>Laura N. Gitlin</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Teaching and Supporting Clients with Dementia and Their Caregivers in Daily Functioning</td>
<td>217</td>
</tr>
<tr>
<td></td>
<td>Maud J.L. Graff</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Metacognitive Occupation-Based Training in Traumatic Brain Injury</td>
<td>225</td>
</tr>
<tr>
<td></td>
<td>Jennifer Fleming</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Metacognitive Mental Imagery Strategies for Training of Daily Living Skills for People with Brain Damage: The Self-Regulation and Mental Imagery Program</td>
<td>233</td>
</tr>
<tr>
<td></td>
<td>Karen P.Y. Liu and Chetwyn C.H. Chan</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Strategies to Compensate for Apraxia Among Stroke Clients - The Cognitive Strategy Training</td>
<td>241</td>
</tr>
<tr>
<td></td>
<td>Caroline van Heugten and Chantal Geusgens</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Delivering Energy Conservation Education by Teleconference to People with Multiple Sclerosis</td>
<td>249</td>
</tr>
<tr>
<td></td>
<td>Marcia Finlayson</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Psychoeducational Groups</td>
<td>255</td>
</tr>
<tr>
<td></td>
<td>Sandra Hale and Jocelyn Cowls</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Illness Management Training: Transforming Relapse and Instilling Prosperity in an Acute Psychiatric Ward</td>
<td>261</td>
</tr>
<tr>
<td></td>
<td>Sunny Ho-Wan Chan</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Psychosocial Intervention in Schizophrenia</td>
<td>269</td>
</tr>
<tr>
<td></td>
<td>Adriana D.B. Vizzotto, Patricia C. Buchain, Jorge Henna Netto, and Hélio Elkis</td>
<td></td>
</tr>
<tr>
<td>Chapter</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>27</td>
<td>Behavioral Approach to Rehabilitation of Patients with Substance-Use Disorders</td>
<td>277</td>
</tr>
<tr>
<td></td>
<td>Natalia Punanova and Tatiana Petrova</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Intervention in Panic and Anxiety Disorders Through Lifestyle Modification</td>
<td>287</td>
</tr>
<tr>
<td></td>
<td>Rodney A. Lambert</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mindy F. Levin</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Constraint-Induced Movement Therapy for Restoration of Upper-Limb Function: Introduction</td>
<td>301</td>
</tr>
<tr>
<td></td>
<td>Mary H. Bowman, Victor W. Mark, and Edward Taub</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Constraint-Induced Movement Therapy for Restoration of Upper-Limb Function: Hemiparesis Application</td>
<td>309</td>
</tr>
<tr>
<td></td>
<td>Annette Sterr, Katherine Herron, and Jennifer Sanders</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Strategies for Curing with Self-Speech in People Living with Parkinson’s Disease</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td>Kinsuk Maitra</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Joint Protection: Enabling Change in Musculoskeletal Conditions</td>
<td>325</td>
</tr>
<tr>
<td></td>
<td>Alison Hammond</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Neurodevelopmental Therapy: Sensory Integration and Vestibular Stimulation Intervention in Mentally Retarded Children</td>
<td>333</td>
</tr>
<tr>
<td></td>
<td>Mine Uyanik, Hulya Kayihan, Gonca Bumin, and Gul Sener</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Upper-Limb Movement Training in Children Following Injection of Botulinum Neurotoxin A</td>
<td>343</td>
</tr>
<tr>
<td></td>
<td>Brian Hoare and Remo N. Russo</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Pain Management: Multidisciplinary Back Schools and Future E-Health Interventions for Chronic Pain Sufferers</td>
<td>353</td>
</tr>
<tr>
<td></td>
<td>Miriam M.R. Vollenbroek-Hutten, Hermine J. Hermens, and Daniel Wever</td>
<td></td>
</tr>
<tr>
<td>Chapter</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>37</td>
<td>Pain Management: Functional Restoration for Chronic Low-Back-Pain Clients</td>
<td>363</td>
</tr>
<tr>
<td></td>
<td>Laura Stana, Anne Bouchez, Serge Fanello, and Isabelle Richard</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Occupational Rehabilitation Programmes</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>The Principles and Practice of Work and Ergonomics</td>
<td>369</td>
</tr>
<tr>
<td></td>
<td>Barbara A. Larson and Melaine T. Ellexson</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Reintegration to Work of People Suffering from Depression</td>
<td>375</td>
</tr>
<tr>
<td></td>
<td>Gabe de Vries and Aart H. Schene</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Supported Employment for Individuals with Severe Mental Illness</td>
<td>383</td>
</tr>
<tr>
<td></td>
<td>Cynthia Z. Burton, Lea Vella, and Elizabeth W. Twamley</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Individual Placement and Support: Helping People with Severe Mental Illness Get Real Jobs</td>
<td>389</td>
</tr>
<tr>
<td></td>
<td>Jonathan Garabette and Tom Burns</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Conducting Transitional Strategies that Support Children with Special Needs in Assuming Adult Roles</td>
<td>395</td>
</tr>
<tr>
<td></td>
<td>Leonora Nel and Colette van der Westhuizen</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Part IV Interventions: The Occupational Therapist Enables for Recovery</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Interventions: The Occupational Therapist Enables Recovery</td>
<td>403</td>
</tr>
<tr>
<td></td>
<td>Recovery Interventions: Overview</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ingrid Söderback</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Creating Opportunities for Participation Within and Beyond Mental Health Day Services</td>
<td>413</td>
</tr>
<tr>
<td></td>
<td>Wendy Bryant</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Conducting an Intervention Program Mediated by Recreational Activities and Socialization in Groups for Clients with Alzheimer’s Disease</td>
<td>423</td>
</tr>
<tr>
<td></td>
<td>Elisabetta Farina and Fabiana Villanelli</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Horticultural Therapy for the Cognitive Functioning of Elderly People with Dementia</td>
<td>431</td>
</tr>
<tr>
<td></td>
<td>Midori Yasukawa</td>
<td></td>
</tr>
</tbody>
</table>
47 Medical Music Therapy: Evidence-Based Principles and Practices ............................................. 445
Cheryl Dileo and Joke Bradt

48 Music as a Resource for Health and Well-Being .................................................. 453
Norma Daykin and Leslie Bunt

Part V Interventions: The Occupational Therapist Promotes Health and Wellness

49 Introduction ........................................................................................................ 459
Ingrid Söderback

50 Preventive Interventions: Overview ................................................................. 461
Kirsten Avlund and Mikkel Vass

Preventing Accidents in the Home

51 Preventing Falls in the Elderly Using “Stepping On”: A Group-Based Education Program .......................................................... 465
Lindy Clemson

52 Preventive Home Visits to the Elderly and Education of Home Visitors ........................................ 473
Kirsten Avlund and Mikkel Vass

Preventing Traffic Accidents

53 Issues Related to the Use of In-Vehicle Intelligent Transport Systems by Drivers with Functional Impairments .................................................. 481
Marilyn Di Stefano and Wendy Macdonald

Preventing Occupational Accidents at Work and Workplaces

54 Work-Related Health: Organizational Factors and Well-Being ........................................ 489
Gudbjörg Linda Rafnsdottir and Thamar Melanie Heijstra

55 Functional Capacity Evaluation: An Integrated Approach to Assessing Work Activity Limitations ........................................ 497
Libby Gibson

56 Prevention of Workers’ Musculoskeletal Disorders: A Four-Stage Model ........................................ 507
Navah Z. Ratzon and Tal Jarus
Consultation in the Prevention of Illness

57  Motivational Interviewing: Enhancing Patient Motivation for Behavior Change ........................................ 515
    Robert J. Shannon

Part VI Evaluation of Occupational Therapy Interventions

58  Basic Elements for Conducting Evidence-Based Occupational Therapy ........................................ 527
    Ingrid Söderback

Index ............................................................................................................................................................. 549
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Part I
Introduction
Chapter 1
The Genesis of the Handbook: Material and Methods

Ingrid Söderback*

Abstract The *International Handbook of Occupational Therapy Interventions* came about through extensive literature searches on occupational therapy and medical rehabilitation. These searches also helped is selecting the authors of the chapters in this book, who are experts on clinical interventions in occupational therapy. The searches also identified four major roles for the occupational therapist (OT): (1) to manage adaptations applied to the clients’ environment; (2) to teach clients how, through occupation, to regain functioning and daily living skills; (3) to enable clients to perform purposeful and meaningful occupations that may help their recovery; and (4) to promote health and well-being in preventive interventions. These four roles overlap, as is illustrated in the case study of a woman with a femur fracture.

Keywords Femur fracture • Scientific methods • Origin • The occupational therapist’s • role

Core Content of Occupational Therapy

The interventions presented in this book elucidate the professional core content of occupational therapy. These occupational therapy interventions are commonly used in clinical practice and are documented by research. My purpose in compiling this handbook was to increase our understanding of how the occupational therapy contributes to clients’ health and well-being.

In the late 1960s, the occupational therapy profession was relatively sparsely represented at acute hospitals in my country—Sweden. I was in my first professional job on neurologic and orthopedic wards, and in those days physicians made patient referrals verbally, not in writing. I was responsible for a referral case from a respected physician, an expert in orthopedics. The record contained the descriptive phrase: “Sixty-eight-year-old woman with right femur fracture, at present

*Söderback is the Swedish spelling and Soderback is the English spelling of the author’s family name.

1Occupational Therapist is shortened as OT or OTs throughout the Handbook.
having her leg in traction for at least 2 weeks.” The prescription was: “A teddy bear—thank you.” What did this mean? After interviewing the patient it became clear that she wanted something to do while waiting for her femur fracture to heal. She wanted to make a teddy bear, which was to be a gift to her newborn grandchild. Thus, the occupational therapist (OT) was able to offer the patient the opportunity to do something that was meaningful and useful for her. This type of recovery intervention is the primary origin of occupational therapy.

Finding a useful project for this patient also provided me with the incentive to explain and disseminate knowledge about occupational therapy, as there are now many other cost-effective measures that would have been appropriate for this patient. Today, the physicians’ prescription would have included a postoperative occupational training program. During the hospital stay, the interventions would have comprised an individualized learning process to improve the patient’s ability to ambulate indoors, to perform light housework, and get into and out of an automobile.

As for environmental adaptations, the OT would have prescribed assistive devices, such as a reacher, a raised toilet seat, a raised bed, and stocking pullers. These devices would make the patient independent in self-care, such as personal hygiene, bathing, and toileting. There is now considerable evidence to support such interventions for people suffering from hip fractures (Hagsten et al., 2004, 2006; Hagsten and Söderback, 1994).

To assess health promotion and risk, a home visit aimed at preventing further accidental falls (Avlund et al., 2007) would have taken place after the patient’s discharge from the hospital (Söderback, 2008).

The four major factors exemplified above—adaptive interventions, recovery interventions, interventions using the teaching–learning process, and measures of health promotion and risk assessment—constitute the core content of the occupational therapy interventions presented in this handbook.

**Method and Material**

**Study Design**

An extensive review of the literature (Stein and Cutler, 2000) determined which occupational therapy interventions should be included and which scientists and clinicians should be invited to contribute chapters to this handbook.

The inclusion criteria for occupational therapy interventions were as follows:

- Keywords: occupational therapy.
- Articles containing in the title or suggesting in the text an identifiable occupational therapy intervention.
- Articles published in referee-examined scientific journals.
- Publications describing types of case reports, clinical trials, consensus, developmental conference reports, comparative studies, evaluation studies, literature reviews, meta-analyses, randomized control trials, research reports, and research supports according to the PubMed database classification (National Library of Medicine and Health, 2006).
• Publications based on studies of clients or literature.
• The selected intervention is described in more than one published study.
• The publications contain a complete abstract in English.
• The author names and email addresses or postal addresses are identifiable through an Internet search.
• Recent articles were chosen over older ones.
• An international distribution of the publications was desirable.

Exclusion Criteria

• Publications concerning psychometric investigations and validation of occupational therapy assessment instrument and of occupational therapy theories and models.
• Publications concerning interventions known from textbooks, such as the Bobath neurodevelopment reflex inhibition therapy (Bobath and Bobath, 1950), are not represented in this handbook, since no study thereof was found connected with occupational therapy, or no author was available, or the method had no proved evidence of its efficacy for patients (e.g., stroke patients) (Kappelle et al., 2007).

Selection of Interventions and Authors

To obtain an overview of the occupational therapy interventions presented in textbooks, I reviewed the 27 textbooks (Table 1.1) that I have used during my 40-year career, searching for occupational therapy interventions. This overview and the inclusion criteria listed above served to validate the choice of interventions for this handbook. The overview also demonstrated the four major occupational therapy intervention factors that characterize the interventions as illustrated in Fig. 1.1: the therapist manages the patient’s adaptation (Chapter 2), the therapist teaches and the patient learns (Chapter 3), the therapist enables the patient’s recovery (Chapter 4), and the therapist promotes health and wellness (Chapter 5).

Data searches of scientific publications were performed with the PubMed database as the primary source. Additional sources were the OT seeker (http://www.otseeker.com/), and the following Journal of Occupational Therapy, Occupational Therapy International, and Work, A Journal of Prevention, Assessment, and Rehabilitation (Shawn, 2007).

The primary PubMed search with the keywords “occupational therapy” and the inclusion and exclusion criteria generated 4456 items (about 50% of the available items) published from 1960 to July 2006, and 225 items published from August 2006 to December 2007. The abstracts of these publications were saved on the EndNote database (EndNote, 1998–2000). Publications before 2002 were saved for possible future documentation of the history of the interventions if they were to be
Table 1.1  Textbooks used for identification and an overview of occupational therapy interventions

The Genesis of the Handbook

Publications from 2002 to 2007 (n = 959) were chosen for primary categorization. The abstracts of the articles were carefully reviewed. The articles that did not fulfill the inclusion/exclusion criteria were discarded, leaving 352 in the original file. These articles were critically evaluated and classified by (1) the intervention factor, (2) the subjects of the interventions (children, adolescents, adults, frail elderly), (3) the diagnoses, and (4) the titles and database references (authors’ names, addresses, and publication facts). Four copies of the original file, one for each intervention factor, were used for further identification of the interventions.

Many of the interventions identified had no author name, title, or other designation. However, the authors had explained their aims in terms of body function, body structure, activity and participation, environmental factors, or diagnoses. I therefore could use the concepts of the International Classification of Functioning, Disability, and Health (ICD) (World Health Organization, 2007) for further classification. With the ICD definitions in mind, the articles in each of the four files were again carefully reviewed and categorized.

The definitions of the interventions were validated by a comparison according to the Thesaurus of Occupational Therapy subject headings (American Occupational Therapy Foundation, 2004) and the PubMed MeSH database (National Library of Medicine and Health, 2006). The content of each intervention was reviewed based on the definitions, and the intervention was labeled according to the authors’ suggestions.

For interventions represented by more than one published study, a scale was constructed, giving priority to randomized studies, to the newest publications, to authors with OT qualifications, and to wide geographic distribution. Identification continued until a saturation point was reached; that is, the same articles or authors turned up irrespective of the search method. A descriptive meta-analysis and an annotated bibliography showing the interventions presented in the handbook are given for each of the four major intervention factors.
Authors were suggested for each identified intervention, and they were contacted by email, letter, or telephone call. Fourteen of those contacted declined, and addresses for another 14 were not found.

**Results**

By July 2008, the handbook contained 61 chapters by 90 authors from around the world (Fig. 1.2 and Table 1.2), who are affiliated with 59 universities or hospitals or in private practice. The chapters discuss the selected occupational therapy interventions (Fig. 1.1).

**Discussion**

The chapters of the handbook may be viewed as a sample of the available occupational therapy interventions.

The selection of the chapters presented in this handbook is the result of an attempt to apply scientific methodology. However, this process of identification of authors was somewhat restricted by language barriers, as we strived to select mainly English-speaking authors. In addition, there are doubtless more occupational therapy interventions in clinical use that are not presented in published studies and therefore are not represented in this handbook.

![An approximate map of where the authors of the chapters in this book live.](image)