

Introduction

This double issue of *Technology and Disability* focuses on the role of occupational therapists with assistive devices. This is truly an international issue, with papers from Japan, the United Kingdom, Canada, Sweden, New Zealand, Australia, the Netherlands, and the United States – papers authored by occupational therapists. This issue reflects the breadth of work and issues with which occupational therapists are involved. Historically, provision of assistive devices has been associated with occupational therapists. Today, therapists are involved in research, education, and service activities in assistive technology. This collection of 13 papers provides examples of the work of therapists around the world.

The first paper is authored by Clare Hocking of New Zealand. Hocking provides a brief history and review of the literature on the role of occupational therapists with assistive technology. She goes on to discuss issues related to abandonment of devices and psycho-social issues that must be addressed when recommending assistive technology.

The second paper authored by Helen Pain and colleagues (Jackson, McLellan and Gore) of the UK addresses the evaluation of devices used in assisting care providers with the transfer of persons with disabilities. While nursing personnel face the majority of health worker injuries resultant from assistance with transfers, this is also an issue for occupational therapists. Involvement of an occupational therapist in assessing which devices work best is appropriate.

Our third paper is authored by Jenny Kim and Susan Mulholland of Canada, and focuses on wheelchair needs of people with disabilities in developing countries. Kim and Mulholland discuss the importance of appropriate technology for the culture and environment, and the problems with equipment donated by developed countries. This paper provides an excellent example of occupational therapists concern with issues related to people with disabilities in developing countries.

The next paper addresses hand function of persons with tetraplegia. Sheryl Davis and colleagues (Mulcahey and Betz) from the United States, report on clinical trials conducted with the Freehand System, a functional electrical stimulation system that offers active hand movement for persons with tetraplegia.

Lisbeth Nilsson and Per Nyberg of Sweden discuss the use of single-switch control versus powered wheelchair use in the training of persons with severe mental retardation on cause and effect relationships. While their work is limited to case studies, the findings are provocative, suggesting that the traditional use of single-switch first may be less effective than initiating training with a powered wheelchair.

The next two papers address splinting, an important area of occupational therapy practice. Winnie Yuen Yee Chan and Christine Chapparo from Australia discuss the “Effect of wrist immobilization on upper limb function of elderly males”. Using Expertvision, a motion analysis system, they quantified and described the three dimensional movement of subjects wearing a splint while performing on the Jebsen Hand Function Test. Their results suggest that splinting at the wrist has implications for the entire upper extremity. Stella Li and colleagues (Liu, Miyazaki and Warren) of Canada discuss the “Effectiveness of splinting for work-related carpal tunnel syndrome” over three months. They found that for subjects with mild carpal tunnel syndrome there was significant improvement in reducing symptoms and functional status three months after splinting.

Henriette van Zwet-de Savornin Lohman of the Netherlands discusses the role of occupational therapists under a nationally mandated system for evaluating persons with disabilities for home adaptations and technical aids. This progressive system for the provision of aids contrasts sharply with systems in most other countries, and the important role played by the occupational therapist in the process is described in this paper.

Christi Tuleja and Anitra DeMoss of the United States discuss Babycare technology based on their work at Through the Looking Glass, a non-profit organization in Berkeley California that designs and fabricates babycare assistive technology for parents with physical disabilities.

Ruth Benedict with colleagues (Lee, Marrujo and Farel) of the United States report on a study of the impact of assistive device use on child and family function, and caregiver satisfaction with devices. The authors sought to develop a practical method for evaluating effectiveness of assistive device use by young children.

Yoko Sato and colleagues (Tomioka, Ozawa and Aketa) of Japan provide a brief report on the role of occupational therapists in preparing for the 1998 Winter Paralympic Games in Japan. The National Association of Occupational Therapists of Japan worked with the Nagano Paralympic Organizing Committee in preparing volunteers, and also provided an assessment of the athletic facilities and area hotels.

Susan Nochajski and colleagues (Oddo and Beaver) describe a US Department of Education funded project focusing on the role of technology for students transitioning from school to college and work settings. They developed and implemented the "Technology and transition" model, which has yielded successful outcomes for students with disabilities.

Jo Schweitzer and colleagues (Mann, Nochajski,

Tomita) present an interesting study of use of assistive devices for leisure activities among older persons with disabilities. The intersection of leisure and assistive devices is often missed, perhaps because service providers in day programs are not typically aware of assistive devices, and occupational therapists, who understand assistive devices, typically focus on activities of daily living rather than leisure. Schweitzer's study highlights the important role assistive devices can play in promoting involvement in meaningful leisure activities among physically frail elders.

All in all, occupational therapists are involved in a wide range of assistive technology related activities. This issue reflects a small sample of their important work.

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