

Chapter 19

Occupational Therapists' Perceptions about the Non-Use of Recommended Assistive Technology (AT)

Patricia M. Wielandt
University of Alberta, Canada

ABSTRACT

First this chapter will present an overview about assistive technology (AT). Next factors identified in the literature and thought to influence AT use will be presented. The second part of the chapter will present the findings extracted from a larger three-phase study, which aimed to obtain occupational therapists' perceptions about AT non-use. Drawing from their experiences therapists identified the client-, AT-, intervention-focused factors which they had found to influence use. Some of these factors were similar to those identified in the literature, with therapists offering additional perspectives about the role these issues actually played in affecting AT use. In addition, therapists highlighted other important factors, not previously identified as influential or which had received little attention. Overall results showed support for a client-centred approach during the provision of AT. Suggestions were made to incorporate the Matching Person with Technology (MPT) model into current practice to guide the AT provision process.

INTRODUCTION

Over the past forty or so years a substantial collection of literature has accumulated surrounding the topic of assistive technology (AT) use. This indicates not only various health professionals'

collective concerns about the non-use of recommended AT, but it also highlights the complexities involved in the AT provision process. Indeed to ensure a successful AT outcome there must be an exact match between the clients' needs, the activity to be undertaken and the environment in which the activity will occur.

DOI: 10.4018/978-1-60566-206-0.ch019

In earlier studies researchers used the term 'compliance rate' when measuring the frequency of AT use. Currently, the term 'compliance' is not used and instead we use the terms 'AT use' and 'AT non-use'. Most of the reviewed studies had multi-diagnostic sample sizes which ranged from 8 to 502 subjects, used a wide variety of definitions for AT use, had different follow-up timeframes, with some larger studies surveying use in an extensive range of AT (Wielandt & Strong, 2001). Interestingly, there was no literature located which examined AT non-use from the perspective of the health professionals who provide AT for clients. Obtaining therapist perspectives would be useful and could add to the body of knowledge surrounding AT non-use. The purpose then of this research was to gain an understanding of occupational therapists' perceptions about AT non-use, which was then compared and contrasted with the available literature.

BACKGROUND

An integral part of the occupational therapy management of individuals with disability or dysfunction is assisting them in the successful completion of personally relevant activities of daily living (ADL). Such a goal may be achieved by programs designed to increase relevant performance components, activity adaptation and/or environmental modifications. Recommending AT is a frequently used element of therapeutic interventions designed to modify the person's environment to facilitate optimal activity engagement.

AT is usually recommended to enhance the client's level of independence and promote the safe completion of essential daily tasks. Often though the use of recommended AT makes it possible for the person to engage in activities away from their home and within their community. This then has a markedly positive effect on their subjective wellbeing and provides them with a real sense of achievement (Mann, 2001; Schemm

& Gitlin, 1998). Additionally, AT plays a pivotal role in the rehabilitation process by improving a client's functional capabilities and assisting them in the transition from rehabilitation to home (Wielandt, 2003).

In spite of the many positive outcomes associated with owning AT, there are diverse rates of AT use reported in the literature, ranging from 35% (Garber & Gregorio, 1990) to 100% (McGrath, Goodman, Cunningham, McDonald, Nichols & Unruh, 1985). In a recent study Scherer and Craddock (2002) reported that approximately 30% of obtained AT is either abandoned or discarded within the first year.

In order to understand AT non-use various researchers have identified many factors (positive and negative influences), which have usually been based on the client's rationale for non-use (Wielandt, 2003). These predominant factors can be arranged into three distinct groups: client-, AT- and intervention-focused. Client-focused factors include socio-demographics, diagnosis and perceived benefits of the AT itself. Influences in the AT-focused group involve functionality and aesthetic quality. Intervention-focused factors surround elements of the service delivery model including assessment, AT selection and training.

Client-Focused Factors

Various demographic factors including the client's age (Caudrey & Seeger, 1983; Edwards & Jones, 1998; Forbes, Hayward & Agwani, 1993; Geiger, 1990; Haworth & Hopkins, 1980; Sonn & Grimby, 1994), gender (Edwards & Jones, 1998; Haworth, 1983; Haworth & Hopkins, 1980; Sonn & Grimby, 1994) and living situation (Edwards & Jones, 1998; Geiger, 1990; Sonn & Grimby, 1994) have been found to influence the use of AT. Certain diagnoses also appear to be connected to AT use and these include polio (Grynbaum, Kaplan, Lloyd & Rusk, 1963), lower limb amputations (Gitlin, Schemm, Landsberg, & Burgh, 1996), rheumatoid arthritis (Haworth, 1983), spinal cord

16 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/occupational-therapists-perceptions-non-use/48289

Related Content

Neurosurgical Operations Using Navigation Microscope Integration System

Takashi Tamiya, Masahiko Kawanishi, Keisuke Miyake, Nobuyuki Kawai and Shuxiang Guo (2013). *Technological Advancements in Biomedicine for Healthcare Applications* (pp. 128-138).

www.irma-international.org/chapter/neurosurgical-operations-using-navigation-microscope/70855

Graph-Covering-Based Architectural Synthesis for Programmable Digital Microfluidic Biochips

Daiki Kitagawa, Dieu Quang Nguyen, Trung Anh Dinh and Shigeru Yamashita (2017). *International Journal of Biomedical and Clinical Engineering* (pp. 33-45).

www.irma-international.org/article/graph-covering-based-architectural-synthesis-for-programmable-digital-microfluidic-biochips/189119

Development of an Interactive GUI Tool for Thyroid Uptake Studies using Gamma Camera

Amruthavakkula Shiva, Vignesh T. Sai, Subramaniyan V. Siva, Kumar T. Rajamani and Sankara Sai S. Siva (2016). *International Journal of Biomedical and Clinical Engineering* (pp. 1-8).

www.irma-international.org/article/development-of-an-interactive-gui-tool-for-thyroid-uptake-studies-using-gamma-camera/145162

Systems and Control Theory for Medical Systems Biology

Peter Wellstead, Sree Sreenath and Kwang-Hyun Cho (2009). *Handbook of Research on Systems Biology Applications in Medicine* (pp. 11-26).

www.irma-international.org/chapter/systems-control-theory-medical-systems/21524

Classification of Brain MR Images Using Corpus Callosum Shape Measurements

Gaurav Vivek Bhalerao and Niranjana Sampathila (2015). *International Journal of Biomedical and Clinical Engineering* (pp. 48-56).

www.irma-international.org/article/classification-of-brain-mr-images-using-corpus-callosum-shape-measurements/138227