

## BRIEF REPORT

# Occupational Therapists' Use and Perceptions of Written Client Education Materials

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### KEY WORDS

- health information
- older clients
- practice patterns

**OBJECTIVE.** The purpose of this study was to examine occupational therapists' use and perceptions of written education materials for clients and the factors that therapists consider before distributing written materials to clients. This study also aimed to determine whether use and perceptions of these materials differed for older clients.

**METHOD.** A random sample of 50 occupational therapists from Queensland, Australia, working in adult physical disabilities settings was surveyed with a structured questionnaire. Data were analyzed descriptively and with nonparametric statistics.

**RESULTS.** Of 49 participants who used written materials, 54% had given them to more than half of their last 10 clients, regardless of the clients' age. Written materials, most often information sheets developed by the participants themselves; handwritten notes; and pamphlets were principally used to reinforce verbal information. Clients' cognitive abilities, primary language, communication skills, vision, and level of education most often were considered before distributing written materials. Although participants generally were positive about the content and effectiveness of materials, ratings were significantly less positive related to older clients.

**CONCLUSION.** Client education was a core treatment modality for participants in this study, with written media most commonly being used to supplement verbal education. Because participants were least positive about the effectiveness of written materials for older clients, further development of materials for this audience may be indicated.

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Client education has an integral role in occupational therapy practice (Trombly, 1995). In a study of the treatment choices of Australian occupational therapists working in adult physical disabilities settings, client education was the most commonly used treatment medium, with 74% of therapists using it often or most of the time (McEneaney, McKenna, & Summerville, in press). As part of a client-centered focus, occupational therapists help clients achieve their goals by involving them in their treatment through information exchange and education. Occupational therapy interventions also frequently focus on skill acquisition, which involves a teaching and learning process.

Health professionals use various media to educate clients. One of the most com-

mon is written information (Bernier, 1993). For written information to be useful, it must be effective in its content and design. Many written materials used for client education require a reading ability equivalent to grade 10 schooling or higher (Chapman & Langridge, 1997), whereas the average adult American reads between a sixth-grade and eighth-grade level (Reed-Pierce & Cardinal, 1996). Low literacy level can be a particular problem for older people (Weiss, Reed, & Kligman, 1995).

Although health professionals are a primary source of health information, few studies have investigated their use or opinion of written materials, particularly with older clients. Tooth et al. (2000) surveyed 50 Australian general practitioners and 188 older people. The general practitioners

reported using written materials to supplement verbal education but did so less frequently with older people. Chapman and Langridge (1997) surveyed 11 British physiotherapists about their perceptions of the written materials they used. Although satisfied with the content and accuracy of materials, the physiotherapists believed that the materials' poor design was likely to affect clients' understandings of information negatively. No studies were found that considered the use of written materials in occupational therapy practice.

The purpose of this study was to determine occupational therapists' use and perceptions of written client education materials and to explore factors that they consider before using this medium. The focus on written materials was taken because one of clients' preferred mechanisms for receiving health information is a written format (Bernier, 1993). Given the increasing number of older people in society and their potential literacy difficulties, a focus on older clients also was taken. The specific research questions posed were:

1. (a) How much do occupational therapists use written materials to educate adult clients? (b) What materials do they use? (c) Are there differences in how much and what they use when clients are older (i.e., > 64 years of age)?
2. What factors do occupational therapists consider when deciding to use written materials?
3. What are occupational therapists' perceptions of the quality of the written materials they use? Are these perceptions different when clients are older?

## Method

### Participants

Participants in this study were Queensland occupational therapists working in adult physical disabilities practice who were members of the Australian Association of Occupational Therapists (OT Australia). Although membership of OT Australia is voluntary, 80% of Queensland occupational therapists are members. Therapists were eligible for inclusion if they had clients 65 years of age and older in their caseload. The November 1999 edition of *Who's Working*

*Where*, a publication by the Queensland branch of OT Australia (Australian Association of Occupational Therapists, 1999), identified 428 occupational therapists who potentially met these criteria. From this sampling frame, 76 names were drawn randomly. Sixteen were excluded because they did not have a suitable caseload for this study, leaving a sample of 60 potential participants. Of these, 6 had changed employment, 2 were on leave, and 2 declined to participate because of time constraints. Consequently, 50 useable surveys were returned, representing a response rate of 83%.

### Instrument

A survey questionnaire designed to be either self-administered or completed by telephone or face-to-face interview was developed specifically for this study. The questions were informed from previous research conducted by the authors that had addressed similar issues with general practitioners (Tooth et al., 2000), a review of the literature, and discussions with occupational therapists. To enhance the validity of the questionnaire, a convenience sample of 10 occupational therapists from two separate facilities completed a draft of the instrument. Modifications, such as rewording some ambiguous questions, were made to the final instrument.

To address the first research question, participants were asked about the extent to which they use written materials to educate adult clients, the types of materials they use, and whether differences exist in how much and what materials they use with older clients versus younger clients. Participants responded to most items dichotomously (yes or no) or on a 5-point Likert scale (never, rarely, occasionally, frequently, always). A 5-point scale is the recommended when descriptors and numbers are used together (Weisberg, Krosnick, & Bowen, 1996). Participants also were asked, "To how many of your last 10 clients did you give written materials, and to how many of your last 10 *older* clients did you give written materials?"

To address the second research question, participants responded dichotomously to factors that they consider before using written materials with clients. Examples

included the client's primary language, communication skills, education level, age, and visual and cognitive abilities. These factors were drawn from a study by Weiss et al. (1995) and clinician feedback.

To address the third research question, participants were asked to rate on a scale of 1 to 9 (1 = being of no use, 9 = being extremely useful) their perceptions of a variety of characteristics of their written materials for all clients and for clients 64 years of age and older. Cummins (1998) recommended that a 9-point scale can reflect more adequately people's discriminative capacity in assessing subjective issues and is more likely to produce a normal distribution of responses. Other items were included in the survey to obtain information about participants' demographic, clinical, and work backgrounds.

### Procedure

Ethical clearance to conduct this study was obtained from the University of Queensland. Each therapist in the randomly selected sample was sent a letter providing details of the study and a copy of the questionnaire. Two weeks later, a follow-up telephone call ascertained therapists' verbal consent to participate and their preference for self-administering the questionnaire and returning it by mail ( $n = 19$ ) or completing it by telephone ( $n = 28$ ) or face-to-face interview ( $n = 3$ ).

### Statistical Analysis

Data were analyzed descriptively with the Statistical Program for the Social Sciences, Version 9 (SPSS, 1998). In the descriptive analysis, some categories from the 5-point Likert scales (e.g., never and rarely, frequently and always) were collapsed because of the non-normal distribution of results, which is common with Likert scales; that is, some cells had few or no cases. Collapsing the data, therefore, enhanced interpretation when reporting results (Portney & Watkins, 1993). The Wilcoxon signed rank test was used to determine whether a difference existed in the number of written materials given to participants' last 10 clients of any age and their last 10 clients 64 years of age and older. This test also was used to compare participants' ratings of the usefulness of materials (9-point scale) for all clients

and those older than 64 years. No more than 6% of data were missing for any question.

## Results

### *Demographic and Caseload Characteristics*

Most participants were women (92%). Just under half had graduated in the past 10 years (48%), and 22 (44%) were in their 20s. Thirty-six (72%) were employed full-time, and 37 (74%) worked in metropolitan centers. Most either worked in aged care (40%) or had general medical caseloads (24%). For 33 (66%) participants, clients 65 years of age and older comprised half or more of their caseload.

### *Use of Education Materials*

Forty-nine participants (all but 1 participant) used verbal and written education with clients. The participant who did not use education conducted assessments of persons with cognitive impairments and believed that educational materials did not have a place in this role. In terms of the methods of written education used frequently or always, 31 (62%) participants used information sheets, 29 (58%) handwritten notes, and 21 (42%) pamphlets. Forty-five (90%) used materials produced in their own departments; 38 (76%) used materials produced by specialty agencies; and 28 (56%) accessed those produced by government departments.

When asked to how many of their last 10 clients in general did they distribute written materials, the median number was 7. Participants distributed slightly fewer to older clients (median = 6). This difference was not significant. Of the 49 participants who used written materials, 25 (51%) used materials specifically prepared for older clients, which usually meant the use of an "easy reading style" incorporating large print, clear diagrams, and simple point form.

### *Factors Considered Before Providing Written Education Materials to Clients*

Participants primarily considered five factors before giving materials to clients: 48 (96%) considered clients' cognitive abilities,

46 (92%) primary language, 45 (90%) communication skills, 44 (88%) vision, and 42 (84%) level of education. For 46 (92%) participants, the main reason that they used written materials was to help clients remember verbal information. Thirty-eight (76%) frequently or always provided written information at the same time as verbal information. Twenty-four (48%) used written materials because of limited time to educate clients verbally.

### *Perceptions of the Quality of Written Education Materials*

Using a 9-point scale, participants rated written materials most highly on their ability to reinforce verbal information, followed by their ability to provide information to educate clients, and their ability to be read and understood easily. The medians and interquartile ranges (25th–75th percentiles) for these ratings are presented in Table 1. With older clients, participants rated written materials lower in all three areas. These differences were all significant. Using the same scale, participants rated the layout, font, color, diagrams, attractiveness, and language of materials. Median ratings ranged from 5 for color to 7 for language.

## Discussion

This study aimed to determine occupational therapists' use of written education materials, explore factors that they consider before using these materials, and gauge their perceptions of the materials' quality. It also aimed to determine whether differences existed in these areas for older clients. Results showed that verbal and written media were used extensively by the participants in this study. All but 1 participant used verbal education frequently or always with clients, and 27 (54%) had used writ-

ten materials with more than half of their last 10 clients.

Written information was mostly distributed to supplement verbal education. Forty-four (88%) participants in this study reported that they frequently or always discussed information with clients. Twenty-four (48%) used written materials because of time constraints on verbal education. Verbal education in conjunction with written information is preferred by most clients (Wilson et al., 1993) and is the method considered most effective in enhancing client recall (Ley, 1982).

Written materials were provided as frequently to older clients as to other adult clients. Participants provided more written materials to older clients than was reported for Australian general practitioners (Tooth et al., 2000). Clients' cognitive status was most frequently considered before giving written materials to clients. Rather than being a disincentive to using them with older clients, 46 (92%) participants used written materials primarily to aid information recall perhaps because of assumed memory difficulties in older clients.

Most participants produced written materials themselves for distribution to clients. In terms of their perceptions of the effectiveness of materials they used, participants were positive, rating them between 6 and 8 out of a possible best score of 9. Participants were less satisfied for each of the three criteria if the written material was for older clients, despite some indicating that they tailored materials for an older population. According to Reed-Pierce and Cardinal (1996), client education material should be simple to read, preferably at a grade 5 or 6 reading level while, at the same time, providing comprehensive, evidence-based content. Therapists can use simple reading assessments to assist in the selection

**Table 1. Participants' Satisfaction With the Effectiveness of Written Education Materials for All Clients Compared With Older Clients**

Rating Criterion	Median (Interquartile Range) <sup>a</sup>			
	All Clients	Older Clients	Z	p
Reinforcing verbal information	8(7–9)	7(6–9)	-2.62	.009
Providing information to educate clients	7(6–8)	7(6–8)	-2.86	.004
Easily read and understood	7(6–8)	6(5–7)	-3.75	.000

<sup>a</sup>1 = lowest satisfaction and 9 = highest satisfaction.

of materials appropriate to clients' reading levels.

Regarding their perceptions of the design characteristics of the materials they used, participants were mostly positive in their ratings, scoring materials between 6 and 7 out of 9 for features such as language, diagrams, layout, and attractiveness. Guidelines on the optimal design characteristics of written materials are available in the literature (Doak, Doak, & Root, 1995).

### Limitations

Because of the small sample size (50) and because all participants were members of the Queensland branch of OT Australia, the results of this study are not representative of all occupational therapists. Another limitation relates to lack of reliability and validity data for the questionnaire used in this study.

### Directions for Future Research

From the results of this study, future research questions have arisen: (a) What are clients' perceptions of the written materials distributed by occupational therapists? (b) Does the provision of written materials improve clients' health outcomes? (c) Does the use of techniques such as simplifying the content and adhering to optimal design characteristics improve clients' satisfaction with written materials?

### Conclusion

For the participants in this study, client education played a core role in their intervention. Verbal and written media were often used together to educate clients. Most of the participants produced some of their

own materials, and some attempted to use information specifically tailored in content and design for older clients. Despite this, participants were least positive about the ease of understanding of the materials they provided to older clients. Because ease of understanding has been identified as an issue, occupational therapists should use published guidelines to produce written client education materials that are simple to follow. A need also exists for developing a standardized tool for evaluating written education materials' effectiveness. ▲

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