Research Attitudes and Activities of Occupational Therapy Clinicians

Eve Taylor, Marlys Mitchell

Key Words: attitude of occupational therapists • professional practice • research

Two hundred and seventy occupational therapy clinicians, whose primary or secondary employment function was in direct patient service, were surveyed to determine their perceived roles and attitudes regarding research. Results showed a strong belief in the importance of research in the profession, yet minimal involvement in research due to limited time, money, and skill. The role of collaborator with experienced researchers was rated as highly desirable. Few clinicians indicated no interest in research. Implications of the results and suggestions for strategies to increase clinicians’ involvement and satisfaction in research through mutual experiences and continuing education are given.

Occupational therapy research is generally viewed as being conducted by academics. Yet clinicians play a vital role in research, because clinical practice should be based on sound theoretical and practical information and application. Academic and clinical therapists, therefore, need to develop strong professional relationships and positive attitudes regarding collaborative research and research in general. Most of the current information on the profession’s research needs has been written by researchers espousing what the clinician’s role in research should and should not be (Christiansen, 1986; Gillette, 1982; Llorens, 1981; Rogers, 1982). We undertook the present study to determine what occupational therapy clinicians perceived as their role in research.

Literature Review

The need for occupational therapy research to determine the efficacy of treatment, to test theories, and to develop new tools and methods has been documented (Christiansen, 1986; Gibson, 1984; Llorens, 1981; Moersch, 1984). Due to the lack of research and trained researchers, the profession, through the American Occupational Therapy Foundation (AOTF), has devised several methods to help solve the problem, including single-case-design workshops, partnership programs, research symposiums, and research grants. During this AOTF process, it was decided that clinicians in research could best participate as research consumers and collaborators, rather than as principal investigators (AOTF, 1983).

Six major categories have been identified as having particular relevance for occupational therapy research (Office of Professional Research Services, 1987): (a) theory development, (b) development of evaluation and measurement instruments, (c) studies that identify the effect of occupational therapy services, (d) studies that explore and refine intervention strategies and methods and styles of clinical reasoning, (e) research that contributes to society’s understanding of occupation and its effects on behavior, and (f) identification and development of the most appropriate research methods for the profession.

Moersch (1984) wrote that needed occupational therapy research included a definition of activity, the validation of practice, the development of practice, the replication of studies, and theoretically based research that can be translated into practice. Occupational therapists, she continued, need to generate research ideas; conduct research; collaborate with other researchers; publish information that validates occupational therapy services; and develop research bases for philosophy, methodology, ethics, and public policy. These ideas are supported by Christiansen

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(1986), Gillette (1982), Llorens (1981), and Rogers (1982), who described research topics and therapists' functions in research.

Baum, Boyle, and Edwards (1984) stated that the role of occupational therapy managers in the research process includes instructing clinicians in methods of scientific inquiry, providing resources to assist in research initiatives, obtaining support of research from upper management, building relationships with occupational therapy training programs, and developing funding sources. These authors also believe that the organizational role of occupational therapy managers in the research process is to remain current in reading professional literature, hypothesize about treatment efficacy, appreciate the value of research, and maintain skills of evaluation and analysis, which are the rudiments of research.

West (1981) noted reasons why little research is being produced by occupational therapists. Ninety-five percent of therapists enter the profession with bachelor's degrees, prepared for practice as health care providers, and these entry-level therapists are not given learning experiences that help them develop skill in and commitment to research. This lack of skill, along with a lack of standardized instruments, helps explain the profession's lack of research.

Essentials of an Accredited Educational Program for the Occupational Therapist (American Occupational Therapy Association [AOTA], 1983) state, with regard to research, that students should be instructed in the "critique of studies related to occupational therapy" and in "application of research approaches to occupational therapy practice" (p. 820). Although students are required to receive instruction that will enable them to be consumers of research, no indication is given that they should be prepared to be research collaborators or research producers.

Barris and Kielhofner (1985) stated that undergraduate- and graduate-level therapists differ in their reading of professional journals, in their attendance at local and national conferences and meetings, and in their keeping up with current theories, research, and practice trends. Gilkeson and Hanten (1984) did not find a significant difference between the professional contributions of bachelor's- and master's-level therapists. Rogers and Mann (1980), however, found an increased number of professional contributions associated with a higher level of education. Therapists with graduate degrees made significantly greater contributions to practice, education, publications, and professional activities than did therapists with undergraduate degrees, a finding that was also supported by Clark, Sharrot, Hill, and Campbell (1985). Gibson (1984) stated that although bachelor's-level therapists are taught to understand published research, they are not taught to be researchers. She believed that doctoral-level training is traditionally associated with research production.

Parham (1985) noted that only one half of all occupational therapy faculty members at research universities had never published a single article in a refereed journal. In addition, occupational therapy faculty members were younger, held lower academic ranks and degrees, and were less often tenured than were most faculty members in higher education. The main factors that discourage scholarly activities, according to one report, were heavy teaching responsibilities and the lack of funding (Holcomb, Christiansen, & Roush, 1989).

To determine research activity and attitudes of clinicians and academicians in North Carolina, Mitchell (1981) developed and distributed an unpublished questionnaire. This questionnaire was made available to other states through AOTF. Seven states reported results as follows: Of 36 respondents, 85% were not currently involved in research, 18% evaluated their skill level for implementing research ideas as competent, 55% were interested in a workshop on collaborative research, and 60% expressed a desire to meet with someone who could offer assistance with implementing research ideas.

Snow and Mitchell (1982) surveyed occupational therapy curriculum directors and faculty members, directors of occupational therapy clinics and clinicians, deans of medical schools, and hospital administrators to determine professional and administrative relationships between occupational therapy academic programs and clinical programs. The desired strengths of a close relationship, as identified by occupational therapy faculty, included the formation of research ideas and new theories. Improved communication, sharing, exchange, and understanding were cited as desirable by most respondents. They proposed a model of collaboration that included research, education, and service dimensions to facilitate close working relationships between academicians and clinicians.

The purpose of the present study was to determine clinicians' attitudes and activities regarding research and whether they were in agreement with the professional literature about what their research roles should be. The research questions were as follows:

1. What direction do clinicians believe the profession should take in research?
2. What type of involvement, degree of involvement, and level of satisfaction do clinicians have regarding their research participation?
3. If not involved in research, what do clinicians think interferes with their involvement?
4. In what research or continuing education activities would clinicians participate?
Method

Questionnaire

A 14-item questionnaire was developed. Six questions pertained to sample description, that is, education level, years of work experience, job description, and specialty area of practice. Five questions asked respondents (a) to mark whether research should be a priority in the occupational therapy profession, (b) to rank given topics based on the most urgent need of research in occupational therapy, (c) to mark who is doing the needed research, (d) to decide who should be conducting it, and (e) to rank given reasons why needed research is not being done. Two items asked respondents to indicate, on a 5-point scale, their roles and level of involvement in research activities and their level of satisfaction with their involvement, as well as the number of research-related activities in which they had been involved over the past 5 years. The last question asked subjects to rank the desirability of the listed research activities and continuing education topics. Ten occupational therapists pilot-tested the design and validity of the questionnaire, which was then revised according to their feedback.

Subjects, Procedure, and Analysis

Names of 396 occupational therapists who indicated that their primary or secondary employment function was in direct patient service were randomly selected from the American Occupational Therapy Association's 1986 membership data survey (AOTA, 1987). The questionnaire, a cover letter, and a self-addressed stamped envelope were mailed to all of these subjects. Of the 396 questionnaires mailed, 289 (73%) were returned. Of those questionnaires returned, 19 were discarded because subjects did not meet established criteria or improperly completed the questionnaire, thus leaving 270 questionnaires for analysis.

Descriptive, nonparametric, and parametric statistics were used in the analyses through the SAS Institute's (1987) computer package. The rank-ordered responses were analyzed with a weighted-sums procedure. Post hoc comparisons were conducted to determine relationships between the selected variables.

Results

The respondents' specialty areas of practice were as follows: physical disabilities, 40.0% (n = 108); developmental disabilities, 30.0% (n = 81); mental health, 9.3% (n = 25); home health care, 4.4% (n = 12); gerontology, 3.3% (n = 9); and other, 13.0% (n = 35). The three specialty groups with the greatest number of respondents—physical disabilities, developmental disabilities, and mental health—differed in amount of work experience, F(2, 203) = 3.81, p = .0237. Subsequent tests with the least significant difference test resulted in the ordering of the three groups. Therapists working in developmental disabilities settings had the most experience (M = 10.97 years); mental health was second (M = 9.23 years); and physical disabilities, third (M = 8.43 years). Developmental disabilities and physical disabilities differed significantly, t(283) = 1.97, p = .05. The samples of the remaining specialty groups were too small to analyze. In addition, clinicians with master's degrees had significantly more work experience than clinicians with bachelor's degrees, F(1, 258) = 19.76, p = .0001.

No relationship was found between years of work experience and research productivity, F(1, 207) = .03, p = .89; or between research productivity and degree held, $x^2(1, N = 204) = 2.186, p = .13$.

Whether research should be a priority in occupational therapy was affirmed by 84.4% (228) of the respondents. The three topics thought to be in most urgent need of research were (a) treatment effectiveness and outcome studies, (b) developing assessment instruments, and (c) developing new treatment methods and techniques. These were followed in order by treatment efficacy/cost–benefit analysis, testing theory, establishing population norms, and replicating research studies. The weighted scores for these topics were 544, 338, 285, 211, 131, 48, and 27, respectively.

Table 1 shows the mean scores of the respondents' judgment of their involvement in research. Approximately 75% of the items received low involvement scores, and 25% received moderate involvement scores. None of the means fell within the high involvement range.

Although the respondents' subjective (qualitative) level of involvement in research (as measured on a Likert-type scale) correlated significantly with their objective (quantitative) report of involvement, the correlations were low to moderate in strength. Correlation coefficients ranged from $r = .289$ to $r = .599$. Apparently, the respondents' subjective reports were independent of their objective reports regarding research involvement.

The respondents' level of satisfaction with the type and amount of involvement in research activity was low (M = 1.83 on a 5-point Likert-type scale). Using chi-square, we found no significant differences in scores among therapists in the various specialty areas of practice.

The questionnaire included several questions on factors that interfered with participation in research. Regarding who should be doing the research, 97% of the respondents indicated both clinicians and academicians, 1.5% indicated clinicians only, and 1.5% indicated academicians only. The respondents over-
whelmingly agreed that therapists in clinical and academic settings should work together to conduct research. When asked if they were conducting research on any of the research topics listed, 82.2% of the respondents said no. The factors that interfered with engaging in research, ranked in order of importance, were (a) limited time; (b) lack of money, space, or assistance; (c) lack of skill; (d) lack of support from management and low priority (these items were tied); and (e) no interest. The respective weighted scores were 621, 550, 259, 104, 104, and 78.

The respondents' ranking of eight choices for participation in continuing education and research activity, from first to last choice, were (a) research projects with experienced researchers, (b) university and college courses, (c) research skills workshops, (d) journal club and journal article sharing group, (e) graduate program, (f) workshops on professional and journal writing, (g) workshops on funding opportunities for research, and (h) none of the above. The respective weighted scores with the method discussed earlier were 415, 240, 231, 212, 188, 70, 57, and 55.

Discussion

A discussion of the four major topics in the survey follows.

Research directions within the profession. Clinicians are aware of the need for research. Combining the knowledge that clinicians see their research roles to be as collaborators and consumers with the knowledge of the research topics that clinicians considered most important and urgent (e.g., treatment effectiveness and outcome studies, the development of assessment instruments, the development of new treatment methods), researchers should consider the research interests and needs of clinicians when planning research activities or projects that will include them. This suggestion is supported by Snow and Mitchell (1982).

To increase research productivity, Christiansen (1986) suggested that research be directed by professional researchers within the profession and include clinicians as collaborators. The results of our survey support this suggestion.

Collaborative research efforts between academicians and clinicians can be assisted by (a) a selection of research topics that are of particular concern to clinicians (as listed in the Results section), (b) the location of qualified occupational therapy faculty to assist in researching specific topics, (c) a determination of ways that managers and administrators can support research endeavors, and (d) a determination of ways that state associations, AOTA, and AOTF can assist in collaborative efforts.

Research involvement. Our findings that clinicians see research as a professional priority but have low involvement in research and low satisfaction with their level of involvement indicate that clinicians have a positive attitude toward research, and that this attitude needs to be cultivated and brought to fruition in practice.

Interference with research production. In collaborative efforts with clinicians, experienced researchers should consider the time, money, and personnel constraints under which clinicians function. Some managers consider time given to research as time away from generating revenue. Others (Baum et al., 1984), who support the building of research relationships between occupational therapy clinics and occupational therapy academic programs, suggest that managers schedule research time for clinicians, obtain support for research activity from upper management, and obtain other resources for clinicians. The

Table 1
Clinicians' Perceived and Measurable Involvement in Research Roles and Activities (N = 270)

<table>
<thead>
<tr>
<th>Roles/Activities</th>
<th>Perceived Involvement</th>
<th>Measurable Involvement</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Collect clinical data</td>
<td>2.09</td>
<td>1.46</td>
</tr>
<tr>
<td>Analyze clinical data</td>
<td>1.84</td>
<td>1.34</td>
</tr>
<tr>
<td>Apply research findings to practice</td>
<td>2.41</td>
<td>1.57</td>
</tr>
<tr>
<td>Generate research ideas</td>
<td>1.71</td>
<td>1.14</td>
</tr>
<tr>
<td>Read nonresearch journal articles</td>
<td>3.52</td>
<td>1.21</td>
</tr>
<tr>
<td>Read research journal articles</td>
<td>2.82</td>
<td>1.36</td>
</tr>
<tr>
<td>Attend conferences and workshops</td>
<td>3.32</td>
<td>1.22</td>
</tr>
<tr>
<td>Speaker at conferences and workshops</td>
<td>1.71</td>
<td>1.23</td>
</tr>
<tr>
<td>Research assistant or collaborator</td>
<td>1.37</td>
<td>0.95</td>
</tr>
<tr>
<td>Independent or principal researcher</td>
<td>1.19</td>
<td>0.92</td>
</tr>
<tr>
<td>Published nonresearch articles</td>
<td>2.04</td>
<td>0.66</td>
</tr>
<tr>
<td>Published research articles</td>
<td>1.02</td>
<td>0.72</td>
</tr>
</tbody>
</table>

* Measured on a 5-point Likert-type scale, ranging from low (1) to high (5) in response to the question, "How much are you involved?"  
* Respondents were asked such questions as, "How many articles a month?" "How many conferences per year?"  
* p = .0001
lack of interest appears to be the least influential variable.

The AOTF Partnership Program assists experienced and novice researchers by providing financial support and research consultation. This program should be continued, but other funding sources must be identified and made available.

**Continuing education and research activities.** Opportunities for research experience and the development of knowledge and skills in research are in high demand. To increase research knowledge and skills, research consumer and collaborator skills need to be taught proactively in academic programs and retroactively in workshops held locally and nationally. AOTF and its partnership program also help strengthen clinicians' knowledge and skill. In teaching program planning and management skills, OT students can be advised to include time and resources for research (Baum et al., 1984). Employers should be convinced that continuing education opportunities will benefit their therapists.

Our finding that there is no difference in research productivity between clinicians with bachelor's degrees and those with master's degrees agrees with some studies (Gilkeson & Hanten, 1984) and disagrees with others (Barris & Kielhofner, 1985; Clark et al., 1985; Rogers & Mann, 1980). Regardless of the position one takes on this issue, it is evident that therapists must have more opportunities to increase their knowledge and skills if they are to confidently assume the consumer and collaborator roles. Continuing education is essential regardless of academic degree or years of experience.

**Conclusion**

Clinicians believe that research is important in our profession, especially research related to treatment effectiveness and outcome studies. They have limited involvement in research and are dissatisfied with their level of involvement. Although the clinicians in this study thought both clinicians and academicians should be conducting the needed research, they found themselves limited in time, money, space, and skill. Clinicians want to collaborate with experienced researchers, but they also ranked courses as desirable ways to increase their research skills. Reading articles and attending conferences and workshops are clinicians' principal means of involvement in research. A more assertive and proactive strategy of research involvement is through collaboration with others. This could raise both the level of involvement in research and subsequent satisfaction. Perhaps the most positive result of this study is that few clinicians indicated no interest in research. The profession needs to draw on clinicians' interest in research and develop strategies for increasing their involvement and productivity through mutual and supportive experiences.

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**References**


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