As a profession, occupational therapy has been repeatedly confronted with the challenge to prove the value of occupation as a therapeutic medium. The types of research pursued by occupational therapists have evolved in response to societal trends, external pressures, and the priorities of individual practitioners. Although many therapists have reconciled the pursuit of research with the roots of occupational therapy through an adherence to naturalistic methods, others continue to value experimental research designs. This article explores the rise of qualitative research methods in occupational therapy and addresses the current dilemma between naturalistic and positivistic designs.

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This article was accepted for publication October 13, 1997.

We are not servants of the present day alone, but future days and years, if not ages, need us, and we can render valuable service to others in the future as well as the present.... Our recorded successes will point the way for others to go, while our recorded failures will show the paths to be avoided. (Pollock, 1921, p. 567)

Throughout its history, occupational therapy has faced many challenges. The need to prove the value of occupation emerged shortly after occupational therapy’s inception and continues to this day. Criticism from the medical establishment, coupled with an internal sense of professional responsibility, has resulted in an endeavor to demonstrate the value of occupation as a treatment modality. The profession has used several methods, from simple forms of outcomes measurement to complex experimental and qualitative research designs, in an attempt to validate its existence, ensure its survival, and secure its place as a “profession” in the 20th century and beyond.

Encouragement From the Medical Establishment

Early attempts to validate occupation as a therapeutic medium were taken up by the powerful and influential male supporters of occupational therapy, most of whom were physicians. Herbert James Hall, a psychiatrist and early advocate of occupational therapy, was one of the first to recognize the need for the profession to prove its worth in the treatment of persons with mental illness (Dunton, 1922). Hall, who challenged the traditional “rest-cure” notion of treatment, had advocated occupation to treat patients with mental illness since the early part of the 20th century. In 1910, he reported the effect of graded manual work on 100 patients over a 5-year period. These patients had been involved in a “work-cure” program consisting of the systematic introduction of specific crafts, such as handweaving, wood carving, metalwork, and pottery, in a workshop setting. According to Hall (1910), “These crafts are chosen because of their almost universal appeal...their essential dignity and...the possibilities of very gradual acquirement” (p. 12). Of the 100 patients treated, 59 were “improved,” 27 were “much improved,” and 14 showed “no relief” (p. 13). This early form of “outcomes” analysis, though informal, convinced Hall of the curative worth of occupation, and he fostered the growth of occupational therapy in the milieu of the workshop.

To promote the acceptance of occupational therapy among his colleagues, Hall spoke at the Fifth Annual Meeting of the National Society for the Promotion of Occupational Therapy (NSPOT) in 1922. He emphasized the importance of accurate and concise record keeping to demonstrate “the actual benefit and effect of occupation upon the patient” (Dunton, 1922, p. 238). In an approach predictive of modern quality assurance methods, Hall recommended “[the reduction of] records to some central specific factor, so that [they] may be readily understood”
should cater to physicians in its record keeping might seem somewhat self-serving, it may have been the wisest option and general progress are so mixed up with other medical elements that it is almost impossible to separate them" (Dunton, 1922, p. 238).

Although confident that the work-cure brought about improvements in institutionalized persons with mental illness, Hall advised caution in the interpretation of therapeutic benefit from occupational therapy. At the 1922 NSPOT meeting on record keeping, he warned that when a patient showed improvement, "you would not want to say that occupational therapy did it all," emphasizing that occupation was merely “one part of the general treatment” (Dunton, 1922, p. 239). This early support for record keeping, however, contained no suggestion of how to isolate the individual effect of occupational therapy from the general treatment provided to the patient. Hall believed that the primary goal of record keeping was not to validate the efficacy of occupational therapy, but to promote the acceptance of occupation as a treatment method among physicians.

Another prominent physician present at the 1922 NSPOT meeting, Edward Brush, reiterated the need for record keeping, noting that "American doctors... look upon occupational therapy as merely a fad" (Dunton, 1922, p. 240). In summarizing his opinion about the purpose of record keeping in occupational therapy, Hall stated:

The actual reporting of the record is a matter of great importance because we want to record it, so that the medical mind may understand it and will be ready to appreciate it at almost a glance or else it would not be read or appreciated. (Dunton, 1922, p. 239)

Economic and Professional Necessity

Although Hall’s suggestion that occupational therapy should cater to physicians in its record keeping might seem somewhat self-serving, it may have been the wisest option available at that point in our professional journey. There were indeed physicians who questioned occupational therapy’s right to exist, and without support from the medical establishment, occupational therapy might not have been allowed to continue in its active role within the hospitals.

William Livingston, assistant medical director of the Montefiore Hospital for Chronic Diseases in New York City, represented those physicians and other medical professionals who were doubtful about the value of occupational therapy. He believed that the primary value was to give the patient something to do and asserted that only 5% of occupational therapy was "real therapy" (Livingston, 1923, p. 210). He characterized arts and crafts as "useless," arguing that patients should be required to produce articles that could either be used in the hospital or make a profit for the hospital.

Livingston (1923) offered a list of 14 “occupations” that ought to be pursued by patients in institutions, includ­ing the making of paper bags, chart holders, mops, and clothing for hospital staff members. In Livingston’s view, the value of occupation was limited to the economic worth of its product; the benefit of occupation on the person was ignored. According to Livingston, if a patient had an interest in the activities provided by occupational therapy, “it must have been the type that appeals to a child—playing his time away—which mature adults... do not possess and which should by no means be encouraged even in cripples” (p. 210).

The criticism voiced by Livingston (1923) and others dramatically represented the need not only for approval from physicians, but also for proof that our services were indeed valuable and necessary to the patient. Livingston stated that “occupational therapy is a non-essential” (p. 212). He challenged the cost of maintaining occupational therapy departments on the basis of accountability to the community. Even in this prereimbursement era, economic considerations threatened to eliminate the profession unless occupational therapy practitioners could demonstrate the value of their services.

In a rebuttal to Livingston, occupational therapist Blanche McNew (1923) asserted that the value of occupational therapy resided in diversion from institutional life, consideration of the patients’ interests, adaptation of work to meet the patient’s individual needs, and the positive influence of the therapist’s personality on the patient. She stated: “In this work, the personality of the aide may be ninety per cent of the cure” (p. 658). However, without the benefit of outcomes data or formal research findings, McNew could not objectively support the worth of occupation.

The Advent of Formal Record Keeping

Horatio Pollock, a statistician for the New York State Hospital Commission, tried to assist occupational therapy in demonstrating its value through record keeping. In 1923, Pollock held a roundtable on records for the NSPOT, believing that through appropriate documentation, occupational therapy could take its place within the domain of science (Pollock, 1923).

Although Pollock recognized the relevance of keeping records for economic survival and for the guidance of physicians and other authorities, he understood its importance for our professional growth. He noted that "by carefully analyzing the results of our work year by year and by comparing them with the achievements of others, we shall make rapid progress and ultimately a firm scientific basis for our work will be established" (Pollock, 1921, p. 567). Pollock (1923) suggested a record-keeping system that was a prototype of modern outcomes databases in which occupational therapy departments could compare their statistics from one year to another as well as with those of other departments in other hospitals.

Like Hall, Pollock advocated a record-keeping system.
that was simple to maintain, with little superfluous information. However, he thought that occupational therapy practitioners should keep track of more than just the length of time the patient participated in therapy. He recommended the use of four forms: (a) a prescription card, which would include demographic, diagnostic, and assessment information about the patient; (b) an administrative card, which would keep the monthly record of attendance and progress; (c) an attendance register, which would serve as the daily record of attendance and progress; and (d) a statistical card, which would report the kind of instruction given and compare the patients' baseline status to final results (Pollock, 1923).

At the conclusion of Pollock's roundtable presentation, the NSPOT appointed a committee to establish a system of uniform records. Although Pollock had asserted that recording outcomes data would thrust occupational therapy into the scientific world, few would dispute the fact that research keeping in and of itself is not a scientific pursuit. Hyman Brandt (1953), a research consultant for the American Occupational Therapy Association (AOTA), maintained that the mere accumulation of data was not sufficient; occupational therapy practitioners should attempt to uncover the relationships underlying such data. He distinguished between the collection of existing knowledge (i.e., outcomes) and the search for new knowledge to reread, revise, and interpret existing knowledge. Only the latter, Brandt contended, could be characterized as research.

The Pursuit of Scientific Research

The 1950s were marked by a concern for and interest in scientific research. Many therapists and other professionals viewed research as essential to the growth of the profession. Ellen Neall DuVall (1952), an occupational therapy educator, summed up the idea that occupational therapy was ripe for involvement in scientific research:

A study of the growth and development of any well established profession will show that, as it emerged from the swaddling clothes of infancy and approached maturity, research appeared....As a profession becomes an intricate and essential part of the social structure, it must keep pace with the progress of society if it is to maintain or achieve its optimum service to that society. (p. 97)

DuVall's statement indicated a burgeoning sense of confidence and accountability among occupational therapists.

D. Wells Goodrich (1954), a psychiatrist, also believed that occupational therapy was ready to involve itself in research. He cited three developments in the profession that signaled its readiness for research: (a) the determination that our services were a valuable treatment for patients, (b) the establishment of working relationships with other professionals, and (c) the development of training centers and training standards for occupational therapists. Some uncertainties remained, however, regarding the daunting responsibility of research. Many of the early articles admonishing the importance of research began by providing dictionary definitions of the term, reflecting the authors' perceptions that the majority of therapists had no idea what research was. Furthermore, there seemed to be a preoccupation with defining the type of person suitable to perform research, indicating a perception that some therapists were not qualified to take part in the search for new knowledge. DuVall (1952) set forth a list of "essential qualifications of a researcher" (p. 97), suggesting that certain inherent characteristics were of the utmost importance in determining whether the person was qualified to perform research. Included in this list of characteristics were common sense, good judgment, absence of prejudice, imagination, initiative, inquisitiveness, intellectual honesty, creativity, freedom from smugness, versatility and breadth of interests, and a good work ethic.

Despite DuVall's straightforward criteria, many of the occupational therapists of the 1950s seemed to be mystified by scientific research and how it might be applied. Nowhere was the insecurity regarding research more pronounced than in the professional association itself. In 1953, the AOTA convened an institute on the subject of research in occupational therapy because of increasing requests from members for further study on the topic. The July/August 1954 issue of The American Journal of Occupational Therapy included excerpts and abstracts from this institute. The foreword, written by the institute program committee, had an undeniably tentative, apologetic, and even somewhat defensive tone:

We, as a whole, have not been trained in science, but rather in the art of healing....You told us why you wanted an institute on research and how you wanted us to handle it. We have tried to follow your suggestions....Fortunately we had two years in which to develop the program and we needed every bit of that time....It is with mixed feelings of gratitude and pride that we present these papers and talks.... (AOTA, 1954, p. 139)

The Association seemed to approach the demand for information about research with a certain degree of trepidation. Because research methodology in occupational therapy had yet to be developed, the committee members went outside the profession to find experts in other fields who were active in research. They stated, "We selected people from the field of the social sciences...who, we thought, would approach our subject and group sympathetically. We believe they have some understanding of the sort of work we are engaged in as occupational therapists" (AOTA, 1954, p. 139). Hence, with the input from psychologists, psychiatrists, and statisticians, a format for research in occupational therapy was explored.

Some of the experts dispelled the myth of the "perfect researcher" (Brandt, 1953; Goodrich, 1954). Brandt (1953) asserted that the researcher needed simply to develop a "feel" for the data, which was not intuitive but, rather, the result of an organized program of self-learning. Goodrich (1954) stated, "Anyone who has attained proficiency in one of the healing arts and who also understands the natural
stages of science is in a position to participate in research” (p. 142).

While attempting to foster a sense of confidence in occupational therapists regarding the implementation of research, these professionals also cautioned therapists to be aware of their limitations. Many suggested interdisciplinary research as a potential starting point (DuVall, 1952; Goodrich, 1954). Goodrich (1954) maintained that occupational therapy ought not to concern itself with the commencement of research projects but rather with increasing its communication and collaboration with other disciplines.

While advocating team research, Goodrich (1954) cautioned therapists about the discomfort in changing one’s role from that of therapist to researcher and even warned against “cross-disciplinary seduction” (p. 143) wherein therapists might be inclined to abandon occupational therapy for another field after exposure to different disciplines. Such caveats from the panel may have indicated a perception (deserved or not) that occupational therapists were insecure about their choice of a profession as well as their role as researchers.

All of the members of the panel, however, agreed that research was a desirable endeavor for occupational therapy. Goodrich (1954) stated that research was important to contribute a better understanding of occupational therapy methods and to allow a forum for the application of theories and observations from medicine, sociology, psychology, and physiology to occupational therapy. Thus, the emphasis—borrowed from these disciplines—was on developing scientific and quantitative methods in occupational therapy.

These other related, but fundamentally different, professions had a profound effect on directing our introductory research efforts, despite their lack of a complete understanding of our profession. The panel members’ misunderstanding of our basic terms and premises was, at times, almost comical. On being asked to evaluate the appropriateness of graded activity for patients with tuberculosis as a research project, Robert Blake, a psychologist, expounded, “Graded activity with respect to what?... [W]e would need to know how one grades anything whether it is watermelons or people” (AOTA, 1954, p. 144).

Although it is somewhat frightening to think of giving such outsiders the authority to evaluate the appropriateness of topics we wished to explore, one must take into account that the Association was clearly overwhelmed by requests for research agendas. The professionals with whom the institute program committee consulted provided occupational therapy with a framework from which the profession could begin scientific inquiry and gain respect from other professionals.

In reviewing the literature of the 1950s, one can identify several things that characterized occupational therapy’s initial approach to research. Many articles detailed the basic steps involved in conducting an experiment, all of which emphasized an adherence to the scientific method (Brandt, 1953; DuVall, 1952). Although some, like Brandt (1953), hinted that the “gray” nature of occupational therapy’s philosophy might not fully lend itself to the positivistic methods of scientific inquiry, there was, nonetheless, an emphasis on specific operationalization and limitation of variables; simple, testable hypotheses; and quantitative analysis. Occupational therapy embarked on a diagnostic, reductionistic, and problem-oriented approach to the study of its “subjects.”

Thus, in the push for an increased sense of professionalism through research, occupational therapy risked its holistic view of the person and occupation. The adoption of scientific research methodologies was not entirely negative, however. Positivistic research may have helped occupational therapy to bolster its reputation as a healing profession, lending support to the use of occupation as a treatment modality.

The adoption of experimental research designs in occupational therapy may be viewed as an essential step in an evolutionary process. For the first time in history, occupational therapists were doing research for themselves in order to contribute to the growth of the profession. The emphasis was on the expansion of professional knowledge as the justification for research, with no mention of economic issues or the need to prove our worth to other professionals. The duty to produce and report replicable studies was emphasized so that findings could be repeatedly tested, verified, and added to our knowledge base with confidence (Brandt, 1953, DuVall, 1952).

Although some of the reductionistic methods introduced by other professionals may have been inconsistent with the holistic philosophy of occupational therapy, this input from other disciplines may have served as the impetus for occupational therapy to enter the arena of research. Their suggestions provided a starting point for a profession which, at that point in its development, lacked both the confidence and the experience to create its own research designs. Even Yerxa (1991), who suggested that we abandon experimental research methodologies in favor of qualitative approaches, advocated that occupational therapists possess a working knowledge of quantitative research approaches.

Furthermore, Reilly (1960), in discussing the urgency for research in occupational therapy, stated, “At the clinical level, our minds should become dominated by the attitudes and methods of science” (p. 206). However, in 1960, 7 years after the AOTA’s institute on research, Reilly still characterized occupational therapy as being merely on the threshold of scientific emergence. Similarly, Meyerson (1957), although an advocate of occupational therapy, stated that our profession was in the “pre-scientific” (p. 131) stage of efficacy, lacking both objective evidence and rigorous, comprehensive theory.

A Commitment to Research

In 1965, a major step toward the institutionalization of
research in our profession took place with the establishment of the American Occupational Therapy Foundation (AOTF). One of the primary goals of AOTF was to provide funding for research in order to expand our body of knowledge and to develop and refine theories (Moersch, 1984).

In 1976, the Foundation funded a research seminar in an attempt to foster a national commitment to research. The format and panel of this seminar were far different from those involved in the Association’s institute on research 23 years earlier. This time, the interest regarding researchable areas and topics came from occupational therapists themselves. The participants agreed that research ought to be concentrated in certain “critical” areas, referring to those that were most indicative of patient improvement, most important to payers for our services, and most significant and unique to the profession in its current developmental period (Yerxa & Gilfoyle, 1976).

One specific suggestion for further research that came out of the seminar was the definition of a unifying conceptual framework or systems theory for occupational therapy practice. General areas suggested for research included specialty areas of occupational therapy; the development of standard evaluation tools; the effects of activity, or its documentation (Yerxa & Gilfoyle, 1976).

Hence, although research for the sake of knowledge and professional development was still desirable, in the 1970s we began to see a reemergence of the economic factor wherein the need to be accountable to our payers was emphasized. Before that time, occupational therapy had been included in hospital per-diem charges. When occupational therapy charges were separated from the overall hospital charge because of reimbursement for services, cost-effectiveness became a greater concern.

The profession-wide commitment to research was strengthened in the next decade with the creation of the Occupational Therapy Journal of Research in 1981 and the establishment of research competencies by AOTF in 1983. There was a widespread belief in the profession that all practitioners should have the preparation to participate in research. At the very least, according to the AOTF (1983), entry-level therapists should be able to locate, understand, and apply research findings to practice.

In the mid-1980s, the commitment to research took on a new urgency, as the era of cost containment in healthcare began. With the implementation of set-rate reimbursement in the form of diagnosis-related groups, competition for scarce resources was fostered among the allied health professions, making it more imperative that we validate our skills and our work. What will be demanded of us is profession-wide research to find objective measurements of our effectiveness. We must substantiate that what we do makes good sense—ethically and economically. (p. 4)

Hence, the 1970s and 1980s were characterized by a steady increase in studies using quantitative methods and experimental and quasi-experimental designs in response to the ever-mounting demand for accountability (Ottenbacher & Petersen, 1985; Ottenbacher & Short, 1982).

Incorporation of a New Paradigm in Occupational Therapy Research

At the same time, however, a different trend was developing in occupational therapy research. One of the duties Eckenhoff (1983) had identified was that of validating our practice ethically as well as economically. Herein lay the basis for a new direction in occupational therapy research.

Many practitioners at the time believed that we were ignoring the complex nature of our patients in the attempt to reduce them to isolated, measurable units. Kielhofner and Burke (1977) asserted that occupational therapy was in the midst of a crisis generated by the failure of traditional scientific frames of reference to incorporate a holistic view of the human being as an adaptive organism. Yerxa (1991) feared that traditional research approaches, which emphasized normality versus pathology, might cause us to abandon our ethical responsibility to persons who are chronically ill. She asserted that occupational therapy needed to be innovative in incorporating research approaches that are more compatible with our holistic view of the person than the traditional, natural science-based approaches.

Yerxa and others began to explore qualitative research methods that would be appropriate for study in occupational therapy, including phenomenology, ethnography, systems theory, life history, naturalistic inquiry, historical research, dramaturgic models, case method, psychobiographies, and other new paradigm research (Yerxa, 1991). Kielhofner (1982) advocated the use of participant observation as a method of inquiry. These qualitative methods allowed for the study of persons within their natural contexts rather than separated from them.

The justification for qualitative research in occupational therapy was apparent: As a profession concerned with the adaptation of persons to their environments and vice versa, the study of the persons within their environments was crucial. Traditional experiments involving the observation of humans in controlled, artificial environments were viewed as insufficient for understanding the person’s holistic nature, including his or her personal perspectives and experiences (Schmid, 1981). Qualitative research allows the researcher to take into account those variables that would be controlled for as “nuisance variables” in traditional experimental procedures.

Yerxa (1991) contended that the experimental method did not represent the patient’s reality because it excluded the
Occupational science, with its emphasis on holism and context, may be able to promote a more three-dimensional understanding of our patients than would traditional research approaches. It seeks to understand persons not in terms of their individual parts or bodily systems, but in terms of their propensity to engage in valued occupations (Clark et al., 1991).

Carlson and Clark (1991) described a naturalistic methodological paradigm that contributes to this understanding. Use of a naturalistic method of inquiry promotes an awareness of the interpretations and meanings that persons derive within their natural environments. In turn, this enhances the researcher's comprehension of the fluidity and complexity present in the person's interpretation of experiences. The use of this method has helped to facilitate a return to occupational therapy's roots, where humans and occupations are considered holistically within natural contexts.

Conclusion

As a relative newcomer to the arena of research, the profession has pursued a number of research methods and designs in order to identify those that best suit our purposes. Research priorities in occupational therapy have evolved not only in response to societal trends, but also in an attempt to best serve the recipients of our services. The profession has struggled to justify its existence and prove its validity through the pursuit of research as well as the appropriate and responsible use of research findings.

Although occupational therapy has gained valuable information and produced objective data through its quantitative research studies, qualitative methods may provide a better view of patients as complex occupational beings. However, the current political and economic climate in health care has increased the demand for measurable "proof" of occupational therapy's worth. This demand plus the intense competition for research funding exert pressure on the profession to perform experimental research (Duchek & Thessing, 1996).

Trombly (1995) stated that our conviction that occupation is a valuable treatment modality had been based more on "anecdotal observations passed down from early occupational therapists" (p. 960) than on research, but indicated that this situation was changing. She went on to cite several studies that indicated that the purpose of a task organizes movement (Marteniuk, MacKenzie, Jeannerod, Athenes, & Dugas, 1987; Mathiowetz, 1991; Sietsema, Nelson, Mulder, Mervau-Scheidel, & White, 1993; Van der Weel, van der Meer, & Lee, 1991; Wu, 1993; Wu, Trombly, & Lin, 1994) and the meaningfulness of a task motivates performance (Bakshi, Bhambhani, & Madill, 1991; Bloch, Smith, & Nelson, 1989; DeKuiper, Nelson, & White, 1993; Kircher, 1984; Lang, Nelson, & Bush, 1992; Miller & Nelson, 1987; Riccio, Nelson, & Bush, 1990; Steinbeck, 1986; Thibodeaux & Ludwig, 1988; Yoder, Nelson, & Smith, 1989). Even so, Trombly conclu-
ed that further study of the value of occupation is needed.

Ultimately, neither experimental nor naturalistic methodologies will "prove" the value of occupational therapy. Because of the limitations inherent in all research designs, any hypothesis regarding the value of any form of therapy can merely be supported, not proven. If occupational therapy is to remain a distinct and viable profession, we must substantiate the therapeutic value of occupation. The complexity of human occupation demands that it be studied thoroughly and repeatedly, using a variety of methodologies. Our primary concern should not be which research methodologies occupational therapists should or should not use, but be the defense of the value of occupation as a therapeutic medium. ▲

References


American Journal of Occupational Therapy, 40, 529–534.


