Research Directions for Occupational Therapy

Nedra P. Gillette

Theories and the techniques that implement theory must be substantiated through research. Reed (1984) defined a theory as "a set of interrelated assumptions, concepts and definitions that presents a systematic view of phenomena by specifying relationships among variables, with the purpose of explaining and predicting phenomena" (p. 677). Theory is tested and refined through research. Theory allows one to predict, with some certainty, the probable outcome of a particular clinical intervention. Research is needed both to test existing theory and to generate new principles on which to base practice. Research (a) allows therapists to improve their service to patients, (b) can measure the effectiveness of practice, and (c) should inform society's understanding of occupation.

The proposed research studies discussed in the remainder of the present article are predicated on existing theories of the field. I apologize to those scholars whose work on the specific principles underlying each of the examples presented could not be included here due to space constraints.

Organization of Research

Because the values expressed by occupational therapists include function, autonomy, purposeful doing, and competence and because these values are directed toward the provision of relief from states of disease or dysfunction, so must the research of the field examine practice with regard to these elements. The most cursory glance at problems presented in rehabilitation settings reveals the complex and multifaceted effect of disease, disability, or both on a person's functional capacity. Several attempts have been made to classify the conditions that evolve from the interactional process between disease and the resultant disabilities. Two of those classifications are described briefly in this paper.

In 1980, the World Health Organization established the International Classification of Impairments, Disabilities, and Handicaps, which was designed to provide guidelines for the care of persons with severe disabilities. Three categories were established:

- **Impairment**—"Any loss or abnormality of psychological, physiological, or anatomical structure or function" (p. 7). Impairment thus refers to organic loss or abnormality.

- **Disability**—"Any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being" (p. 7). Disability, then, refers to a loss of some ability to carry out a desired activity at the level of personal function.

- **Handicap**—"A disadvantage for a
Disease and Occupational Therapy

Of the classifications of disease, illness, and predicament, there is the least agreement in the profession regarding the role of occupational therapy in the area of disease. The controversy seems to center on the concept of function as the primary focus of occupational therapy. If practice is to address occupational dysfunction, is there a place for it prior to the dysfunctional state? And if function is the target of practice, can or should the underlying components of function be addressed through the methods of occupational therapy? Rather than continuing this debate of the last decade, perhaps research can be used to obtain some answers to this dilemma.

The treatment of disease requires an understanding of the underlying biochemical and neurophysiological mechanisms. In its present state of development, occupational therapy lacks techniques to measure changes in these mechanisms that may result from clinical intervention. Currently dependent primarily on observational measures, the field is unable to establish what, if anything, happens to underlying disease processes as a result of occupational therapy. Whether or not intervention should occur at this level is a matter of debate; whether or not intervention can be successful at this level is a matter for research.

Closely related is the issue of intervention through the alteration or treatment of the components of function, as opposed to treatment of the resultant occupational dysfunction. Therapists who intervene with strategies designed to improve one or more components of function act on the assumption that there is a cause-and-effect relationship, that is, if the correct group of muscles is strengthened, functional grasp will improve; if attention span is increased, hyperactive behavior will decrease. Research is needed to answer the following questions:

1. So what if strength is improved? Is that really what made grasp more functional?
2. So what if attention span is increased? Are there not other avenues for decreasing hyperactive behavior, for increasing learning?
3. So what if the desired changes in function do occur following intervention at the component level? Would it not be more effective and faster to work directly with the occupational dysfunction than with the components?

Comparative studies are needed to examine the effectiveness of occupational therapy. Rarely is a patient receiving only one rehabilitation service or receiving occupational therapy as the single form of intervention. Ethical concerns prohibit studies in which needed services are withheld. Instead, studies should be designed on a large scale to compare outcomes, for example, where psychiatric patients in Group 1 receive medication, psychotherapy, and occupational therapy; patients in Group 2 receive psychotherapy and occupational therapy; and patients in Group 3 receive medication and occupational therapy. Perhaps an increased capacity for (and gratification from) occupational function can inhibit behavioral disturbances as effectively as medication, psychotherapy, or a combination of the two.

Still in the domain of psychiatry, studies of the effects of purposeful activity on the negative symptoms of schizophrenia may yield exciting evidence of the effectiveness of occupational therapy. It has been suggested that sensory integrative techniques may stimulate psychic organizers that yield higher levels of function. It may also be possible that purposeful activity, with its resultant sense of self-control, might stimulate neurochemical activities that protect the immune system. Some persons with schizophrenia have been shown to have deficiencies in dopamine production. Is it possible that purposeful activity may stimulate increased production of this essential chemical?

Finally, research is needed in the area of prevention: Occupational therapists are concerned with preventing disease, disability, and society's rejection of the person with a disability. Society is ill-informed regarding the relationship between occupation and health. Basic research into how activity choices affect health would not only be a major contribution to society, but also would help to establish the occupational therapy profession as a vital science within the society.

Illness and Occupational Therapy

Illness may be described as the highly individualized response of an individual to a disease process or traumatic event. Whereas one person may be devastated by the loss of one joint of his or her index finger, another may hardly notice the loss. Although some persons may react to chronic illness with despair and
depression, others find new challenges and greater satisfaction than they had known previously. Motivation for therapy, and perhaps even the ability to engage in and benefit from therapy, are elements of the rehabilitation process that should be thoroughly studied through research. What characteristics make one a good candidate for rehabilitation (i.e., one who is likely to achieve success)? What intervention strategies are likely to be successful with a patient showing a particular cluster of motivational problems? Are there identifiable characteristics of occupational therapists that predict what kinds of patients they will treat most successfully?

Because illness is the expression of one's response to disease and disability, research is needed to study changes in behavior or adaptation patterns of persons and their families over time. For example, various strategies may be needed to teach different families how to intervene with their disabled children. Videotapes could be made of families playing with their children before and after being taught how to intervene to correct deficits in function, behavior, or both. Interview techniques could be used to determine how family members feel about these intervention techniques and to gain insight into strategies that might have been more effective for these families.

Adolescents with learning disabilities might be studied to determine the effectiveness of teaching them time-management techniques. Can such techniques be generalized to other tasks? Are they paying increased attention to tasks? Are they doing more homework? Are they earning better grades? Are they exhibiting less disruptive behavior? Friendlier peer interaction?

Elderly persons who are confused and who do not have psychiatric impairments may be responsive to having structure and purpose added to their lives. Their occupational dysfunction may derive from having no meaningful tasks, no schedule to keep, and too little interaction with persons who care about them. With no reason to organize time, confusion gradually ensues. Research is needed to define productivity and purpose in the lives of the well elderly as well as the effects that a sense of worthlessness may have on such persons.

**Predicament and Occupational Therapy**

The predicaments encountered by persons with disabilities constitute a major challenge to research by occupational therapists. Perhaps no other profession is as acutely aware of the interplay between persons with disabilities and the barriers society places between them and their otherwise functional lifestyles. This is an area in which research could place occupational therapy in the forefront of policy development with regard to the provision of supportive measures that would allow persons with disabilities to enjoy the quality of life to which they are entitled.

For example, we might ask, What support systems allow people to be functional in a given environment? The person with the disability and those who care for him or her deserve the opportunity to maximize their occupational roles and tasks. A family may be caring for a patient with a spinal cord injury whose discharge was based on regulations regarding diagnosis-related groups rather than on functional status. This family may be exhausted from providing total care for the member who was denied the opportunity to learn the rudiments of self-care in the hospital. Such patients develop respiratory infections, urinary tract infections, and pressure sores. The demands for care escalate beyond what the family can realistically provide. The family structure dissolves, the patient begins a cycle of readmissions, health care costs escalate, and the family's resources and morale disappear. Research that demonstrates the value of a complete rehabilitation program has an important role to play in eliminating such injustices.

The child who drools may be identified as being less functional than he or she actually is. Parents, teachers, peers, and even other professionals will offer less challenge, less care, and less opportunity to such a child. Research that provides clues about how to change such perceptions would help eliminate the predicaments faced by these children.

In a similar vein, research is needed to design and test instruments that predict learning potential and behavioral change. The basic concepts of a profession should be reflected through the tests and measurements used in its practice. For occupational therapy, this means functional assessments and performance based on tests that measure change in occupational performance.

**Conclusion**

Directions for the Future has yielded a series of challenges, including the need to verify practice through research based on the theories of the field. Research in occupational therapy should address concepts of occupation, occupational dysfunction, and the sociobehavioral elements of occupational behavior. Research may be organized into three categories—disease, illness, and social predicament—which address stages of function across a continuum. The American Occupational Therapy Foundation stands ready to support efforts by members of the profession to examine these important issues.

**Acknowledgments**

I thank those master clinicians who shared their concerns about research needed in their areas of practice: Mary Bridle, Elizabeth Devereaux, Winnie Dunn, Susan Fine, and Catherine Trombly.

**References**


**The Issue Is** provides a forum for debate and discussion of occupational therapy issues and related topics. The Contributing Editor of this section, Julia Van Deusen, strives to have both sides of an issue addressed. Readers are encouraged to submit manuscripts discussing opposite points of view or new topics. All manuscripts are subject to peer review. Submit three copies to Elaine Viseltear, Editor. Published articles reflect the opinion of the authors and are selected on the basis of interest to the profession and quality of the discussion.