Comparison of the Occupational Therapy Research Agenda With the National Institutes of Health Roadmap for Medical Research

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- research
- translational research

As a science-based health profession, occupational therapy involves the art and science of applying scientific knowledge to practice problems. Occupational therapy relies on the processes of applied scientific inquiry to translate knowledge from the basic sciences into clinical solutions to problems within our domain of concern. We call on basic science to inform our thinking and to gain an appreciation for and understanding of relevant practical problems. Occupational therapists are grounded in applied scientific inquiry because our raison d'être is to identify a course of action or to answer a specific question to satisfy a human need (Mosey, 1992).

For the past 60 years, the steady growth in the amount of money available from the National Institutes of Health (NIH) can be credited with stimulating much of the progress in modern medicine. Most of the money, however, was directed toward basic scientific research; only a relatively insignificant amount was devoted to support applied research in the clinic or the community. More recently, a major change in funding priorities has occurred (Reis et al., 2010). Ten years ago, NIH began to closely examine many aspects of biomedical research efforts and has developed a series of new initiatives known as the NIH Roadmap for Medical Research (Zerhouni, 2005, 2006, 2007, 2010). This is a revolutionary change for NIH, marking a substantial increase in support for applied scientific inquiry. The NIH Roadmap outlines a broad translational research model designed to be more efficient and effective in opening bidirectional communication along two continua: (1) laboratory ↔ clinic ↔ community and (2) basic ↔ applied scientific inquiry (Califf & Berglund, 2010; Woolf, 2008). These changes in NIH’s agenda give occupational therapy’s focus of inquiry greater support and more funding opportunities than ever before.

Translational research models are a major element in the NIH Roadmap. These models are designed to transform knowledge of basic science into information that leads to effective solutions for practical, clinical problems with the goal of enhancing the health of individuals and society. Thus, it seems logical that the Occupational Therapy Research Agenda (American Occupational Therapy Association [AOTA] & American Occupational Therapy Foundation [AOTF], 2011) be as consistent as possible with the NIH Roadmap. The purpose of this article...
is to examine the compatibility between the our Research Agenda and the Roadmap and to specifically review selected goals and objectives in the translational research model. Compatibility between the Research Agenda and the Roadmap is important for several reasons. Foremost, however, is the fact that NIH is the largest funding agency for health care research in the United States. Because occupational therapy is a health profession, it is important for occupational therapists to be knowledgeable about and skilled in conducting the dominant type of research in health care so as not to be left behind. Only if our research goals and means are compatible with the Roadmap can we aspire to take a leadership role in health care research.

As a point of clarification, the term medical research in the title of the Roadmap may disquiet some because it implies excessive reductionism and activities particular to the domain of physicians alone. The extensive scope of the phenomena addressed in the Roadmap and the manner in which the Roadmap is presented discourage excessive reductionism. In addition, the Roadmap is concerned with health in the broadest sense, giving special emphasis to maintaining the general health of the community, habilitation, rehabilitation, and optimal community participation of people with functional limitations. Thus, most phenomena of concern in occupational therapy research appear to be well within the parameters delimited in the Roadmap.

Two Documents: Content and Emphasis

The Occupational Therapy Research Agenda was written by and for the occupational therapy profession and is deemed to be consistent with both the AOTA Centennial Vision (AOTA, 2007) and with the NIH Roadmap. Our Research Agenda identifies six research categories of concern: 1. Assessment/measurement 2. Intervention research 3. Translational research 4. Basic research 5. Health services research 6. Research training.

The Research Agenda gives priority to three of the six research categories: intervention research, translational research, and health services research. The question is to what extent these three occupational therapy research priorities are compatible with the NIH Roadmap. The Roadmap requires bidirectional flow of information among the laboratory, the clinic, and the community through the work of multidiscipline, cross-profession, multiskilled teams. Health care teams are expected to rely on evidence from outcomes research to make informed decisions. Moreover, NIH is assisting with and encouraging the development of a set of common metrics to be used to report intervention results. These common metrics, in turn, will facilitate more efficient and open communication (Zucker, 2009).

The dominant theme of the Research Agenda seems to be the need to define, refine, and validate occupational therapy best practice models. Specifically, the intervention research category calls for research to determine the theoretical soundness, effectiveness, and efficacy of occupational therapy. Moreover, the Research Agenda calls for a focus on the development of the “means of evaluating the outcomes of occupational therapy interventions and prevention strategies in an interdisciplinary and translational context” (AOTA & AOTF, 2011, p. S5). This major research goal is further elaborated on in the translational research category: to “examine the implications of novel developments in sciences related to occupational therapy” and to “examine the change processes, whereby new ideas are diffused and adopted in theory and practice” (p. S5).

Aspects of the Occupational Therapy Research Agenda That Need Attention

As a profession, it is important for us to articulate a research agenda that we can successfully carry out and that will allow us to participate in the activities outlined in the NIH Roadmap. Although the Research Agenda is written for the benefit of occupational therapists, we should consider using language that is more widely understood among scientists—for example, that of the International Classification of Functioning, Disability and Health (ICF; World Health Organization, 2001). The Roadmap calls for research teams with cross-discipline and cross-profession membership. Occupational therapists can far more easily participate in such teams when documents that describe what we do are in language that others in the health care system can understand, not just our profession.

A salient and important point in the translational research model is that there is a clear and evident two-way flow of information among laboratory, clinic, and society. Our Research Agenda could be more explicit in describing how this laboratory ↔ clinic ↔ society flow of information occurs in occupational therapy (Bear-Lehman, 2011; Zucker, 2009). The implied flow of occupational therapy communication seems to be within practice arenas delimited by various categories of clients. The Research Agenda speaks to preparing clients for the community. To be more compatible with the Roadmap, occupational therapy researchers should consider expanding the research area of community preparedness to examine ways occupational therapy can more directly intersect with society. For example, occupational therapists could share current research data regarding age-specific sensory and motor performance of older adults with architects, product designers, and the broader community. In turn, occupational therapists can ask community groups what additional or other research data they believe may be helpful. This two-way flow of information has already been initiated; for example, the L. L. Bean catalog publishes information that is based on occupational therapy research regarding how to select backpacks for children (Jacobs, 2002).

The NIH Roadmap requires the formation of multidiscipline, cross-profession, multiskilled research teams to identify and resolve presenting problems. Occupational therapy already has practitioners who participate in such teams, but we need to train more. We have scholars who lead or serve as important contributors on such teams, but we need to prepare more. Our current education requirements and curriculum may need to be reexamined and altered to prepare our graduate students for cross-discipline and cross-profession work and for various levels of participation.
in the Research Agenda and the Roadmap, occupational therapists should be well versed in how occupational therapy contributes to and interfaces with other disciplines and professions. The Research Agenda calls for increasing our research capacity with emphasis on “[socializing] occupational therapy educators to prepare occupational therapy scientists” and “[expanding] occupational therapy’s knowledge and skills in using population-based research for the purpose of prevention and promotion of occupation” (AOTA & AOTF, 2011, p. S6). Moreover, it establishes as a priority to “financially support intervention research of early career . . . occupational therapy scientists and doctoral students” (p. S6). We need to have a specific proposal and guidelines for the academic development and mentoring of occupational therapists to become adept and contributory members or leaders of multidiscipline, cross-profession, multi-skilled research teams at the clinical or scholarly level.

The NIH Roadmap calls for the development and testing of outcomes assessment instruments that measure characteristics of various particular populations using reliable, valid, and accepted instrumentation across research sites. Many of the current diagnostic, functional, and general health status instruments included in the NIH’s newly developed outcomes instruments network, known as the Patient Reported Outcomes Measurement Information System (PROMIS; www.nihpromis.org), rely on self-reported data to determine health status and satisfaction. NIH considers the development and use of valid, widely accepted, self-report instruments so important that it initiated the PROMIS program to allow health professionals to share and compare individually tailored health outcomes instruments using the same metrics across research studies. The PROMIS outcomes program will enhance the flow of communication by increasing understanding of the results of interventions across centers. Occupational therapists need to learn about PROMIS so we can understand its goals, requirements, and available data. We need to examine the PROMIS assessment instruments for their relevance to the evaluation aspects of occupational therapy’s domain. Information in the PROMIS item banks may be useful in conducting continuing outcomes research in occupational therapy. In turn, by including the products of occupational therapy’s outcomes research in the PROMIS item banks, the profession will become an active participant in the PROMIS program.

If occupational therapy is to become a contributing member or a leader in the activities outlined in the NIH Roadmap, it is of paramount importance that we prepare occupational therapists to have clear and well-articulated statements regarding our contributions to multidiscipline, cross-profession, multi-skilled research teams. Our Research Agenda must elevate the sixth category—research training—to the highest priority. We need to review and revise our educational curricula so that we guide us in preparing clinicians and scholars for this work. Revised educational curricula must enable our graduating occupational therapists to do the following:

- Understand and be conversant about the similarities and differences between basic and applied scientific inquiry and their interrelationships;
- Be comfortable with and confident in being an occupational therapist and knowledgeable regarding the profession’s focus, goals, and means;
- Understand the knowledge deficits and research needs of the occupational therapy profession and the ways these can be ameliorated through the work of multidiscipline, cross-profession, multi-skilled research teams;
- Describe the nature of occupational therapy in language that is understood by the biosocial disciplines, other health-related professions, and community members (e.g., using, where appropriate, language of the ICF);
- Hear, understand, and appreciate the various agendas (stated and unstated) of multidiscipline, cross-profession, multi-skilled research teams; and
- Participate in the necessary give, take, and compromise of multidiscipline, cross-professional, multi-skilled research teams.

Aligning the Occupational Therapy Research Agenda with the broader NIH Roadmap will give occupational therapy a unique opportunity to gain financial support for and recognition of applied scientific inquiry, the foundation of our profession. With training, occupational therapists can readily develop the expertise needed to be active and vital members of the multidiscipline, cross-profession, multi-skilled research teams mandated in the NIH Roadmap. The Roadmap and PROMIS, through their dedication to translational research, specifically offer occupational therapy the opportunity to review and strengthen its knowledge base, goals, and objectives and to solidify its research training. In so doing, we will ensure that our scholars are skilled and ready to meet future challenges. ▲

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References


