The Issue Is...

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

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KEY WORDS
- National Institutes of Health (US)
- occupational therapy
- research
- translational research

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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'etre 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 Re-
search Agenda and the Roadmap is im-
portant 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 knowl-
edgeable about and skilled in conducting
the dominant type of research in health care
so as not to be left behind. Only if our re-
search goals and means are compatible with
the Roadmap can we aspire to take a lead-
ership role in health care research.

As a point of clarification, the term medical research in the title of the Roadmap
disquiet some because it implies ex-
cessive reductionism and activities particu-
lar 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 exces-
sive reductionism. In addition, the Road-
map is concerned with health in the broadest
sense, giving special emphasis to main-
taining the general health of the community,
habilitation, rehabilitation, and optimal
community participation of people with
functional limitations. Thus, most phe-
nomena of concern in occupational ther-
apy 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 occu-
pational 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: in-
tervention 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 multi-
discipline, 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 fa-
cilitate more efficient and open commu-
nication (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 in-
tervention 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 interdisciplin-
ary and translational context” (AOTA &
AOTF, 2011, p. S5). This major research
goal is further elaborated on in the trans-
lational 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 adopt-
ted 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 occu-
pational therapists, we should consider
using language that is more widely un-
derstood 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 mem-
bership. Occupational therapists can far more
easily participate in such teams when docu-
ments that describe what we do are in
language that others in the health care sys-
tem can understand, not just our profession.

A salient and important point in the
translational research model is that there
be a clear and evident two-way flow of
information among laboratory, clinic, and
society. Our Research Agenda could be
more overt in describing how this labo-
atory ↔ clinic ↔ society flow of in-
formation occurs in occupational therapy
(Bear-Lehman, 2011; Zucker, 2009). The
implied flow of occupational therapy
communication seems to be within prac-
tice arenas delimited by various categories
of clients. The Research Agenda speaks to
preparing clients for the community. To be
more compatible with the Roadmap, occu-
pational therapy researchers should
consider expanding the research area of
community preparedness to examine ways
occupational therapy can more directly
intersect with society. For example, occu-
pational therapists could share current re-
search 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 be-
lieve may be helpful. This two-way flow of
information has already been initiated; for
example, the L. L. Bean catalog publish-
ing information that is based on occupational
therapy research regarding how to select
packsacks for children (Jacobs, 2002).

The NIH Roadmap requires the for-
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 cur-
ricula 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 they 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.

Acknowledgments

I thank Anne C. Mosey, Professor Emeritus, for sharing her wisdom and generous editorial support.

References


