TRANSLATIONAL RESEARCH: BRIDGE OR DESTINATION?

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Obligation
(Merriam-Webster’s Online Dictionary)

1: the action of obligating oneself to a course of action...
2 a: something (as a formal contract, a promise, or the demands of conscience or custom) that obligates one to a course of action...
3 a: a condition or feeling of being obligated
   b: a debt of gratitude
4: something one is bound to do: duty, responsibility

For Our Patients.....

Nurses have been fierce advocates, often putting our jobs on the line

About Our Research....

- Nurse-investigators have been timid
- We have expected others to “know” about our research
- We get indignant when they don’t

Ultimately, the public suffers!

NURSING

Physiology
Psychology
Biology
Sociology
Education
Genetics
Anthropology
Anatomy
Research Nurse vs Nurse Researcher

“I knew there was a nursing institute, but until I met you I didn’t know what nursing research was all about.”

--Rob Star, MD, Acting Director, Kidney, Urology, and Hematology Division, and Intramural Investigator, NIDDK, NIH

NIH is very BIG (~$28.5 billion)
NINR is very small (~$137.3 million)
NINR has <0.5% of the NIH budget

Common Physician Assumption

“Multi-disciplinary” means:
- the gynecologist working with the internist
- the surgeon working with the family practice doctor
- the orthopedist working with the oncologist
- etc., etc., etc.

Crime: Not Sharing Research

“Am I the only one who finds this document to be too physician focused?”

--Rob Star, MD, Acting Director, Kidney, Urology, and Hematology Division, and Intramural Investigator, NIDDK, NIH

But they didn’t invite me!

Gotta watch those nurses, they could compete for patients and cut into our power, control, and pocketbooks. Why don't the doctors understand we only want to collaborate, we provide complementary services....

Recent NIH Emphasis

- Clinical and Translational Research
- Interdisciplinary Science
- Multidisciplinary Teams

How was the NIH Roadmap developed?

- Extensive consultations with stakeholders, scientists, health care providers addressing:
  - What are today's scientific challenges?
  - What are the roadblocks to progress?
  - What do we need to do to overcome roadblocks?
  - What cannot be accomplished by any single Institute – but is the responsibility of NIH as a whole?

Evolving Public Health Challenges

- Acute to Chronic Conditions
- Aging Population
- Health Disparities
- Emerging Diseases
- Biodefense

Roadblocks

Bench ↔ Bedside ↔ Practice

(aka Clinical Research)
NIH Roadmap

New Pathways to Discovery

Research Teams of the Future

Re-engineering the Clinical Research Enterprise

Clinical Research

NIH Definition:
Clinical research covers all studies of diseases and trials of treatments that take place in human subjects

NIH CTSA Definition:
Comprises studies and trials in human subjects meeting the NIH definition in PHS 398 instructions

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CLINICAL RESEARCH

All health related research using human participants

(from exploratory to randomized clinical trials)

Clinical Research

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NIH CTSA Definition:
Comprises studies and trials in human subjects meeting the NIH definition in PHS 398 instructions

Translational Research

According to the CTSA RFA-RM-07-002:

- Applying discoveries generated during research in the laboratory, and in preclinical studies, to the development of trials and studies in humans
- Research aimed at enhancing the adoption of best practices in the community

Roadblocks

Bench ↔ Bedside ↔ Practice

(aka Clinical Research)
Multi- and Inter-disciplinary Research

A Work on common problem
B Multidisciplinary

A Interaction
B forgers new discipline
C Interdisciplinary

Nursing Research/Clinical Research

- Nursing research has always drawn research ideas from clinical practice
- Nursing research has always been grounded in translating research to practice
- Nursing research has deep multi- and interdisciplinary roots

Our strength and potential contribution come from our history of drawing on the science of many fields for application to nursing practice and for promoting the health of the public

Doctoral Programs in Nursing by 1975

- 1933 Teachers College, Columbia
- 1934 New York University
- 1954 University of Pittsburgh
- 1964 University of California, San Francisco
- 1967 The Catholic University of America
- 1972 Case Western Reserve University
- 1974 University of Texas, Austin
- 1975 University of Alabama, Birmingham
- University of Illinois, Chicago
- University of Michigan
- Wayne State University

Doctoral Programs in Nursing by 2007

OVER 100!
Inter-disciplinary Research

A (e.g., psychology) Interaction C (e.g., Nursing)
B (e.g., physiology) forgés new discipline

Nursing is an “Interdiscipline”

The First Nursing Research Journals

- *Nursing Research*, Vol. 1, No. 1, June, 1952
- *Research in Nursing and Health*, Vol. 1 No. 1, April, 1978

"Your writing style is similar to that of hundreds of HEW Bureaucrats. The shock you’d produce in nursing circles by the production of well constructed clear sentences could do more for your career than a PhD."

--Lee Beach, PhD, 1977

"Keep up the good fight!"

--Lee Beach, PhD, 1977

A Basic Science or An Applied Field??
“...the lack of attention to explicit nursing discipline-specific knowledge puts nursing at high risk for extinction...”

“Why, then, are the pages of so-called ‘nursing’ research journal filled with reports of research designed to generate or test theories with the intellectual traditions of disciplines other than nursing?”


“...any research that has a direct bearing on any part of nursing practice is valid research for a nursing research journal.”


If it bears on nursing practice, it’s nursing research.

Translational Research

Research aimed at enhancing the adoption of best practices in the community

Health Psychology, Jan 2007

- Meta-Analyses and Systematic Reviews of Psychological Treatments for Chronic Pain: Relevance to an Evidence-Based Practice.
- Age-Associated Predictors of Medication Adherence in HIV-Positive Adults: Health Beliefs, Self-Efficacy, and Neurocognitive Status.
- The Dieting Dilemma in Patients With Newly Diagnosed Type 2 Diabetes: Does Dietary Restraint Predict Weight Gain 4 Years After Diagnosis?
- Patterns of Sedentary Behavior Among Adolescents.
**Health Psychology, Jan 2007**


**Evolving Public Health Challenges**

- Acute to Chronic Conditions
- Aging Population
- Health Disparities
- Emerging Diseases
- Biodefense

**Nursing is a Central Player on the Health Professions Team**

Multidisciplinary Clinical Research Career Development Program

- Roadmap K12 Program is designed to increase the national pool of clinician-scientists from many disciplines
- The program differs in its goal by supporting career development of the clinical research team
- The clinical research team includes: nurses, epidemiologists, in addition to physicians, dentists, and scientists.

“We went over to our Nursing School and discovered that they ‘get it!’ They’ve been doing clinical research all along.”

-- PI of a K12 program

--Dr. E. Zerhouni, 5/4/2006

Lauren S. Aaronson, PhD, RN, FAAN
SNRS Keynote February 22, 2007
“One thing we all learned today,..., was that nurses do clinical research.”

--Rob Star, MD, NIDDK, NIH

http://nihroadmap.nih.gov

Multidisciplinary Clinical Research Career Development Program (K12)

- Case/Cleveland Clinic
- Johns Hopkins University
- Mayo Clinic
- University of California, San Francisco
- University of Wisconsin, Madison
- University of Pittsburgh
- University of Washington, Seattle
- Washington University
- University of Minnesota, Twin Cities
- University of North Carolina, Chapel Hill
- University of Maryland, Baltimore Prof School
- University of Texas SW Medical Center, Dallas

Pre-doctoral Clinical Research Training Program (T32)

- Duke University
- Johns Hopkins University
- Medical University of South Carolina
- Ohio State University
- University of California, San Diego
- University of California, San Francisco
- University of Michigan, Ann Arbor
- University of Washington
- Washington University
- Yale University

Exploratory Centers (P20s) for Interdisciplinary Research

- 21 Centers funded in first year of Roadmap
- 15 had a clinical research component or focus

These planning centers combine various aspects of current disciplines to provide new ways of thinking about and addressing key and complex problems in the biomedical and health sciences
Examples of Currently Funded P20’s

- Interdisciplinary Research on Antimicrobial Resistance, PI: Elaine Larson, Columbia U.
- An Interdisciplinary Strategy for Obesity, PI: Barry Popkin, UNC-Chapel Hill
- Health Disparities: Leaders, Providers and Patients, PI: Scott Ransom, U of Michigan
- An Exploratory Center for Obesity Research, PI: Adam Drewnowski, U of Washington

Examples of Currently Funded P20’s

- Exploratory Center for Behavioral Epidemiology, PI: Paul Gertler, UC Berkeley
- Task Force for Obesity Research at Southwestern, PI: Jay Horton, U of TX SW Med Cnt/Dallas
- New Directions in Stroke Neurorehabilitation, PI: Thomas McNeill, USC
- Consortium for Research in Elder Self-neglect, PI: Carmel Dyer, Baylor

Interdisciplinary Research Consortia

- R01 from IC1
- R01 from IC2
- Others
- R01 from IC1
- Instrument Awards S10 or P30
- Training Award

Interdisciplinary Health Research Training: Behavior, Environment and Biology (T32)

- Behavioral and Biological Training in Typical and Atypical Development, U of Wisc, Madison
- Biobehavioral Intervention in Developmental Disabilities, Vanderbilt U
- Interdisciplinary Training in Biobehavioral Pain Research, Johns Hopkins U, Gayle Page, PI
- UNC Interdisciplinary Obesity Training (IDOT), UNC-CH
- Interdisciplinary Training: Neurodevelopmental Toxicology, Harvard U, Sch of PH
- Postdoctoral Training in Neurobehavioral Development, U of Minnesota, Twin Cities
- Interdisciplinary Training for Autism Researchers, U of Calif, Davis

PROMIS: Patient-Reported Outcome Measurement Information System

- 1 Statistical Coordinating Center
- 6 Primary Research Sites
- External Scientific Advisory Board—Chaired by Jackie Dunbar-Jacob, PhD, RN, FAAN
PROMIS Goals

- Improve assessment of self-reported symptoms and other domains of health-related quality of life across a wide range of chronic diseases
- Create highly valid and reliable item banks and associated computerized adaptive testing that will be widely adopted and publicly available to all clinical researchers

NIH CTSA Awards:
A Home for Clinical and Translational Science

Institutional Clinical and Translational Science Award

- RFA-RM-07-002 (re-issue of RFA-RM-06-002)
- Was due January 17, 2007
- Expect 3-4 more rounds
- Expect to fund ~ 60 by 2012

CTSA’s Transforming Goal

Provide the academic home and integrated resources needed to advance the new intellectual discipline of clinical and translational sciences, create and nurture a cadre of well-trained investigators, and advance the health of the nation by transforming patient observations and basic discovery research into clinical practice

Clinical and Translational Science Awards (CTSAs)

- Lower barriers between disciplines
- Develop a distinct discipline for clinical and translational science at institutions across the country
- Train the multi- and interdisciplinary teams who will conduct the clinical and translational research of the future
- Encourage creative, innovative approaches in solving complex medical problems

First Group of CTSAs

- Columbia University Health Sciences
- Duke University
- Mayo Clinic College of Medicine
- Oregon Health & Science University
- Rockefeller University
- University of California, Davis
- University of California, San Francisco
- University of Pennsylvania
- University of Pittsburgh
- University of Rochester
- University of Texas Health Science Center at Houston
- Yale University
24 of the 52 CTSA Planning Grants in the SNRS Region!

CTSA Planning Grants (SNRS Region)
- **Texas:** Methodist Hospital Research Institute (Houston); Texas A&M University Health Science Center (College Station); University of Texas Health Science Center at San Antonio (San Antonio)
- **Kentucky:** University of Kentucky (Lexington); University of Louisville (Louisville)
- **Virginia:** University of Virginia (Charlottesville); Virginia Commonwealth University (Richmond)
- **Georgia:** Emory University (Atlanta); Medical College of Georgia (Augusta)

CTSA Planning Grants (SNRS Region) cont.
- **Florida:** University of Florida (Gainesville); University of South Florida (Tampa)
- **North Carolina:** University of North Carolina at Chapel Hill (Chapel Hill); Wake Forest University Health Sciences (Winston-Salem)
- **Tennessee:** University of Tennessee Health Science Center (Memphis); Meharry Medical College (Nashville)
- **South Carolina:** Medical University of South Carolina (Charleston); University of South Carolina at Columbia (Columbia)

CTSA Planning Grants (SNRS Region) cont.
- **Maryland:** University of Maryland School of Medicine (Baltimore)
- **Arkansas:** University of Arkansas for Medical Sciences (Little Rock)
- **Alabama:** University of Alabama in Tuscaloosa (Tuscaloosa)
- **Louisiana:** Louisiana State University Pennington Biomedical Research Center (Baton Rouge)
- **Washington DC:** Children’s Research Institute; Georgetown University; Howard University

Get involved with preparing the full CTSA application at your institution!

To our colleagues who don’t know to ask,

We must tell them.
We must show them.
Translational Research

As a process, it is a bridge......
linking bench research with clinical research and
linking clinical research with practice in the community.

Translational Research

As an outcome, it is our destination.....
Improving the health of the public!