

GLOBAL CHALLENGES: RESEARCH
AND DOCTORAL EDUCATION NEEDS

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I am honored to be with you to share ideas and lessons learned at the National Institute of Nursing Research (NINR) about doctoral education in nursing. NINR is a part of the National Institutes of Health (NIH) in the United States. The important issues of clinical practice, experience, theoretical frameworks, curricula and laboratory hours need further discussion among us. My focus for this conference, however, is that large and visible component within doctoral education concerning the challenges of nursing research.

NINR's Commitment to Doctoral Education in Nursing

NINR's major achievements have resulted from growing financial support of nursing research and the publication of science findings that have improved health care and the lives of patients in many practice settings. NINR has a major investment in nursing education for research, devoting roughly twice the percentage of total budget to research training than most other Institutes within NIH. In this fiscal year, we are spending over \$8 million to support roughly 190 nurse doctoral students, and about 70 postdoctoral nurse fellows. This money is in addition to career development awards.

NINR is very concerned about the developing problems in the U.S.A. and throughout many countries with the supply of nurses and the recruitment of new students

into the profession. Problems with nurse frustration and burnout, with a loss of nurse executive positions, and with staff nurse turnover were most recently detailed in a survey by Linda Aiken and others of 43,000 nurses in 700 hospitals throughout five nation, reported in the May/June issue of Health Affairs.¹ NINR provided some financial support for the study that generated that report.

Data from the U.S. Health Resources and Services Administration's recent Sample Survey of the Nursing profession in the US report a definite slowing of the growth of the nursing profession, and an aging of the nursing workforce.² Slow expansion of the profession means a smaller pool of nurses from which to draw researchers for the future. Because of the aging of our nursing faculty and research workforce, NINR is expanding research training to attract potential researchers at an earlier age, thus lengthening their scientifically productive careers. We must build on the momentum that NINR has developed in order to have sufficient scientific evidence for nursing practice. In the US, we keep a close oversight of our capacity to support biomedical and behavioral research through the National Academy of Sciences (NAS). This vital advisory organization produces periodic reports on ways the nation should address incentives to recruit, educate, and utilize scientists. Nursing has been included specifically in the last two reports, from 1994 and 2000. The valuable recommendations of the most recent NAS report included one specific to NINR: "The NINR should emphasize research training programs that foster earlier entry into research careers." The report goes on to say,

"Delayed research training inevitably limits the length of an investigator's research career and affects the supply of nursing faculty. The NINR may wish to

consider redirecting a portion of its NRSA funds to programs targeting students entering the nursing profession (such as BA (sic)-to-PhD programs) and recent nursing graduates.”

These recommendations will help us develop creative ways of enlisting recent nursing graduates into research careers, such as developing more BSN to PhD programs, and providing more funds for advanced nursing education, to deepen NINR’s commitment to doctoral education.

Setting Research Priorities

Recalling this conference’s objectives related to setting research priorities, let us focus on three general areas:

- identifying all reasonable factors that shape areas of research opportunity for nursing at the doctoral level;
- establishing a communication vehicle to provide instruction and nourish our community of scholars, using the Internet and other resources;
- seeking all opportunities for interdisciplinary education.

Identifying Areas of Research Opportunity

What some call research priorities, we at NINR call areas of research opportunity. These areas of research opportunity have much less determinative power than laws or regulations. Instead, they are explicit, so we can be clear about them, yet still tentative in the sense that they may be sorted in different orders of importance depending on the context of our individual geopolitical settings.

The process we use for setting research priorities is both inductive and deductive. I offer a description of that process here to share our lessons learned:

NINR funds most, but not all, of nursing research in the US. Our activities are under scrutiny by many interested stakeholders. On some initiatives we must move with speed, while on others we proceed with deliberate thoroughness. We must be ready to move quickly in an area of compelling public health concern, such as emerging infectious diseases, and to stake our claim to new areas of public demand, such as end of life care. We also systematically assess and reassess the state of the science in each of the areas of science in our purview.

So what we have is a systematically cultivated dialogue that allows us to claim responsiveness to as large a group of stakeholders as we can reasonably accommodate, and to claim a commensurate measure of accountability for the resultant areas of research opportunity identified.

Our advisory groups include the National Nursing Research Roundtable (NNRR), and the National Advisory Council for Nursing Research (NACNR). Also, NINR representatives attend four annual geographic Regional Research Society meetings. In addition, as a part of NIH, the NINR serves within the U.S. Department of Health and Human Services (DHHS), which must be responsive to the demands of our elected U.S. Congress.

Along with these advisory groups, we hold periodic workshops to determine effective approaches to new and rapidly developing problems. Recent ones have included Emerging Infectious Disease, Cystic Fibrosis, Health Disparities, End of Life in Rare Diseases, Informal Caregiving, End of Life of Older Adults and building the capacity of psychiatric-mental health nurses to conduct research.

Input from all of these areas and advisory groups goes into setting the priorities for NINR research funding.

Establishing Communication

One characteristic of a community of scholars is that it looks for and utilizes every opportunity to mentor members and facilitate partnership in education and research. Partnering can be informal, to be sure, but NINR has taken a bold step by creating a partnership initiative of \$1 million (U.S.) to support seven partnerships between a research-experienced university school of nursing and a minority-serving school of nursing. Both partners will learn from one another, and will work toward a dual goal: to increase the amount of health disparities research conducted and to increase the number of well prepared minority nurse scientists. NINR will expand this program of partnership support in 2002.

Communication is also important to involve the community in raising awareness about the contributions of nursing research to the health of the public. For NINR, this is most recently illustrated by the public's discomfort with the current state of end-of-life care in our country in the poor symptom management, and concerns about when and how to make decisions about end-of-life, for example.

We have been successful in using art to reach the public about our research. Last year NINR cosponsored an event for the public in connection with the Pulitzer Prize-winning play "W;t" at the Kennedy Center in Washington, DC. The event included a panel of experts and the audience discussing the end-of-life issues raised by the play. It was held in conjunction with the Kennedy Center "Spotlight on the Arts." Late last year we sponsored a symposium at NIH that included clips from the PBS program "On Our

Own Terms: Moyers on Dying.” In this symposium, the dialogue with the public members helped us determine future directions for end of life research.

I focus on end of life for the illustrations I’m providing because NINR is the lead Institute at the entire NIH in end of life research.

Seeking Opportunities for Interdisciplinary Education

Opportunities for interdisciplinary education are important not only for economies of educational effort, but also as a prerequisite for interdisciplinary practice, research and education.

We established a collaboration between the American Association of Colleges of Nursing (AACN) and the Association of Academic Health Centers (AAHC) to videotape six one-hour continuing education programs on end of life and palliative care. Seven hundred network hospitals will air multiple broadcasts of the programs soon. The programs will also be translated into Spanish and Portuguese for international distribution. We have worked, then, to partner research with education and practice, in order to illustrate the dynamic linkages between research and education, and between research and practice.

Developing a Strategic Plan

NINR has invested a major effort in developing a strategic plan thorough not only in its scope and detail, but in the evaluation process we have developed to measure its progress.

Our strategic plan has several scientific goals. Science Goal I is to support areas of research opportunity that achieve scientific distinction and contribute to health.

Towards this goal, we propose to lead NIH research in selected areas of science, collaborate across NIH to access the best array of scientific opportunities for research and research training, and to partner with entities that can promote nursing research.

Science Goal II is to identify and support future areas of opportunity to advance research on high quality, cost-effective care, and to contribute to the scientific base for nursing practice. The Strategic Plan describes our current areas of science and where several areas of research investigation are arranged with our Program Directors who provide assistance to investigators seeking funding. I'll describe later the process we will continue to use for refinement of our Strategic Plan, which, like all other strategic plans, is an evolving piece of work and a living document. Certainly we will do all we can to obtain broad input in order to identify areas of research needs, gaps and opportunities.

Our Scientific Goal III describes the important function of research dissemination. We are making progress in disseminating NINR's research findings to a larger audience through:

- collaboration with researchers and journals in sharing of information,
- maintaining media relations program,
- communicating announcements by e-mail and website postings, and
- publishing relevant press releases.

Scientific Goal IV affirms our long-standing role in preparing nurse researchers by:

- expanding our intramural program to increase training opportunities for nurse researchers,
- expanding our core centers program,
- creating incentives for a new T32 post-doctoral training awards that focus on health disparities or genetics,
- providing several initiatives within our Career Development line to facilitate the transition to a research career, and developing specific programs to increase the number of well-prepared minority nurse researchers. We reported on our progress

to the NACNR earlier this year since the introduction of the Strategic Plan. The NACNR was quite pleased with our direction and our successes, and we will be posting reports on some of that progress on the NINR web site in the future.

I recommend the strategic planning process for any of you in doctoral education, collaboratively developed with clinical partners and others. By providing insight into your reality, pointing to new directions, and benchmarking progress along the way, the planning process provides a firm tripod of support.

Current Areas of Research Opportunity

Let me close by describing the current areas of research opportunity that resulted from our systematic process.

Each year for several years, the areas of research opportunity fell into three broad general categories:

- Chronic Illnesses or Conditions
- Behavioral Changes and Interventions
- Responding to Compelling Public Health Concerns

For the coming year, FY 2002, there are two research opportunities in the category of chronic illnesses or conditions: the management of chronic pain, and the prevention and management of cachexia for improved quality of life.

Within the category of behavioral changes and interventions, the research opportunity is devoted to informal caregiving. A combination of the aging of the population, including those with functional disabilities, and the increasing need for long-term care, contribute to the growing demand for informal care in non-institutional settings. In the US, informal caregivers provide 85% of all home care, for a mean duration of 4.5 years.

In the area of responding to compelling public health concerns, research opportunities include: reducing health disparities in cancer screening, and infrastructure development for nursing research training and career development.

The need for infrastructure development is captured by two main events.

In June 2000, NINR hosted a meeting with the National Coalition of Ethnic Minority Nurse Associations to determine their perceptions of health disparities in the US and how to reduce them, and methods to increase the number and skill base of minority nurse researchers.

With these, as with the following areas of research opportunity, dialogue is underway with other Institutes and Centers to elicit their interest in cosponsoring.

These are the processes by which the NINR establishes areas of research opportunity, utilizing our rich environment and available resources to develop new ideas and transform them into support for nursing research and for research training. We have much to learn from each other's experiences across our international boundaries. I hope you will find lessons in our experience, and I anticipate learning much more with you today which we will find of great value in the United States.

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References:

¹ Aiken L. Nurses' report on hospital care in five countries. **Health Affairs**. 2001;20:3; p. 43-54;

² Health Resources and Services Administration, Bureau of Health Professions. **National Sample Survey of Registered Nurses, 2000**. <ftp://158.72.84.9/ftp/bhpr/nursing/sampsurvpre.pdf>.

