



Re-Envisioning Research-Intensive PhD Programs of the Future

University of Pennsylvania School of Nursing

Antonia M. Villarruel PhD, RN, FAAN
Professor and Margaret Bond Simon Dean of Nursing

Julie Fairman PhD, RN, FAAN
Nightingale Professor in Honor of Nursing Veterans
Chair, Biobehavioral Health Sciences Department

Acknowledgements: Nan Hodgson PhD, RN, FAAN; Peggy Compton PhD, RN, FAAN;
Nicholas Giordano PhD, RN; Kathy McCauley, PhD, RN, FAAN;
Julie Sochalski, PhD, RN, FAAN



Re-Envisioning Research-Intensive PhD Programs of the Future:

Discussions from University of Pennsylvania
Invitational Summit

- Challenges and opportunities related to research-focused nursing PhD programs
- Nursing PhD Summit purpose and structure
- Ideas generated for innovations in PhD education
- Discussion and feedback from you!
- Next Steps

Current Context of Research-Focused PhD Programs

- **Challenges**
 - Decline in number of applicants to research-focused PhD programs
 - Funding – internal and external challenges
 - Preparation of nurse scientists for careers in nursing research
- **Opportunities**
 - Energy for discussion: innovation
 - Understanding of critical time for the re-envisioning research-intensive PhD programs
- **Innovation**
 - Three-year PhD programs
 - BSN-PhD programs
 - More focused substantive offerings and methods (e.g. omics, palliative care, precision science, translation science, community-based research)

Current Context of Research-Focused PhD Programs

- **Emerging questions**
 - Adequate opportunities for post-doctoral training?
 - Career opportunities outside of academia?
- **Evaluation and outcomes of innovations**
 - Clinical context?
 - Need for post-doctoral training?
 - Ability to ask critical questions?

PhD Summit

- **Purpose:**

- To re-envision and reaffirm the critical role of research-focused PhD prepared nurses in context of changing landscapes in health care and health.

- **Participants:**

- Select PhD Deans and Program Directors from research-intensive universities
- PANMCC Center Directors
- AACN, NINR, STTI, AAN
- Foundations (RWJF, Hillman Foundation, Jonas Foundation)



Pre-Summit Survey Results:

Question 1:

What do you think are the biggest challenges that the research-intensive PhD nursing programs have faced?

Three Themes:

- **Funding:** Competition, not enough T32s or F31s, shorter trajectory locks out of funding; 3-year model funding
- **Recruitment:** high quality students with passion for research; competition for students
- **Mentorship:** right mentors with programs of research and scholarship who have the skills and time to mentor and to teach
- **Other:** old core courses; devaluing of the degree; the social and emotional needs of students requiring 3-year degree completion timeframe (particularly with post-bacs)

Pre-Summit Survey Results:

Question 2:

What are the most innovative PhD program changes you have made in the last 5 years?

- **Expanded student pool:** early career applicants, other disciplines with different ways of knowing; pre-admission research experience
- **New program models:** shorter programs; integrated group faculty mentoring; clinical fellowship for students moving directly from BSN to PhD; Joint DNP/PhD programs; DNP to PhD Bridge Program
- **Breadth versus depth of preparation:** new curricular threads (e.g. population, precision health; innovation, data science) and/or intense fellowships/ practicum (policy, innovation; mandatory teaching); reduced core and increase individualized programs to support research content
- **Blended disciplines/programs:** dual degree programs (e.g. bioethics, translational science, engineering); Fellowships (population health, bioethics)
- **Other:** fully funding for 4 yrs; dropping GREs; better candidate interviewing processes

Pre-Summit Survey Results:

Question 3:

Expected and unexpected outcomes of program innovation?

“too early to tell”

Broader applicant pool with tailored programs

Resistance vs benefit of interdisciplinary engagement

How do we track these outcomes?

Pre-Summit Survey Results:

Question 4:

What do you think we can/should change/current opportunities to re-envision PhD education in nursing?

- Better at bridging practice and research
- Recreating programs to build a better, more successful nurse scientist
- Re-thinking support needed for those following a 3-yr curriculum

Question 5

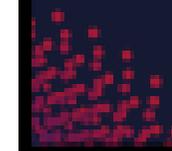
What are specific challenges you face in providing support for your PhD students?

Pre-Summit Survey Results:

- Mentorship
- Financial support
- Mental health challenges
- Diversity of pool of applicants—not enough
- Writing support
- Private schools buying up talent
- Has to be more than achieving NIH support
- International student concerns

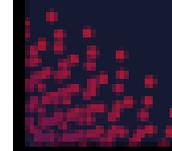
Format and questions: Panels and Roundtables

- What are the innovations in PhD education that are occurring across disciplines and institutions and the potential impact and opportunities for nursing PhD programs at research-intensive universities?
- Discuss PhD programs and the advancement of nursing science
 - Future trends in support needed for nurse scientists
 - What is needed to develop a student into a successful nurse scientist?
 - Gaps in science we need to address?



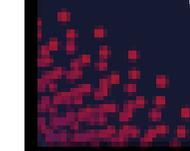
Format and questions: Panels and Roundtables

- How has innovation in programs and curricula changed the landscape to prepare and support PhD students for success?
- What are the PhD Competencies that should guide the preparation of nurse scientists?
 - What is lost and what is gained from recent curricular and program initiatives/innovations in nursing PhD programs?
 - What additional training do accelerated PhD graduates need to successfully navigate appointments as faculty in research-intensive universities?



Format and questions: Panels and Roundtables

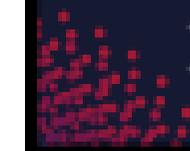
- Discuss emerging roles for research-intensive PhD prepared nurses: Beyond faculty roles.
 - Views from funders/sponsors
- What other PhD Competencies should be considered in the preparation PhD prepared nurses to function in current and emerging roles?
 - Policy
 - Teaching
 - Innovation
 - Global



Roundtable 1 Discussion Themes

How has innovation in programs and curricula changed the landscape to prepare and support PhD students for success? How do we define success?

- Curricular Innovations limited to BSN – PhD & 3 year programs:
 - Benefits: Diverse applicant pool, longer careers, potentially more creative research questions
 - Concerns: Underdeveloped nursing expertise potentially leading to underdeveloped clinically derived questions (need to examine if this is true)
 - Shorter program = limited time to master methodology.
- Postdoctoral fellowship:
 - Needed for those research-intensive faculty tracks; how should they be designed and funded?
 - How can we position nurse PhDs for success in interdisciplinary opportunities?
- or
- Multidisciplinary opportunities (other than T32s)
- Consortia models by interest (e.g. NCSF, Palliative Care Network)
- Location (non-academic - e.g. industry, policy think tanks)



Roundtable 1 Discussion Themes



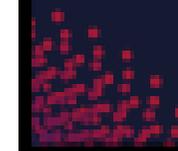
How has innovation in programs and curricula changed the landscape to prepare and support PhD students for success? How do we define success?

• Impact of technology:

- Distance data collection
- Expanded pool of research mentors versus the success of the PhD apprenticeship model based on face to face time with motivated mentors

• Student needs:

- Integration into productive, funded research teams
- Focus on core skills: grant writing; scholarly publications and presentations;
- Ensure methodological rigor, ethical conduct in research, knowledge of broader dissemination strategies (policy, media)
- Envision research trajectory: socialization and reality of a research career



Roundtable 1 Discussion Themes



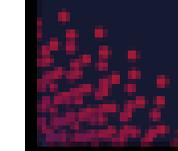
How has innovation in programs and curricula changed the landscape to prepare and support PhD students for success? How do we define success?

• Funding Innovations:

- Adapt grant mechanisms to support scholars from student through established researcher
- Adapt grant review mechanisms to recognize benefit of mentorship of new scholars by senior scientists
- Expand role of national organizations to build scholar skills in leadership, presentations.

• Evidence needed:

- Outcomes of current and new curricular innovations
- Experiences and success/challenges of past, current and future students
- Ongoing evaluation processes, including for students who do not take academic positions



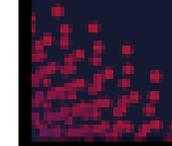
Roundtable 2 Discussion Themes



What *additional* PhD Competencies should be considered in the preparation PhD prepared nurses to function in current and emerging roles?

• Teaching Competencies:

- Based on individual development plan (is teaching a goal?)
- Electives to build competencies such as: modes of learning, curriculum/syllabus development; evaluating learning; teaching residencies
- Mentoring as a form of teaching – role models and skill development
- When? Pre-doc, post- doc, both?



Roundtable 2 Discussion Themes



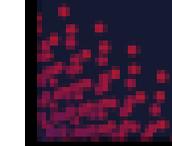
What *additional* PhD Competencies should be considered in the preparation PhD prepared nurses to function in current and emerging roles?

• Health Policy Competencies:

- Structure, function, influencers of government and health care systems
- Impact of policy, regulation and law on nursing phenomena and vice versa
- Policy as a multi-level phenomenon: local through national; institutional vs government
- Strategy: socialization process versus policy course

• Related competencies:

- Ability to make logical arguments
- Concise and clear communication
- Impact of policy on research questions
- Skill in situating student's research/policy implications and opportunities



Roundtable 2 Discussion Themes



What additional PhD Competencies should be considered in the preparation PhD prepared nurses to function in current and emerging roles?

• Innovation Competencies:

- Risk taking; problem solving skills; skills in assessing, designing and re-designing processes, systems and sustainability models, rapid processing skills;
- Diffusion theory and execution
- Stakeholder engagement skills; technology/ clinical behavior interface
- Specific skills: entrepreneur; App developer; data visualization processes; interface with business; marketing skills; 2-3minute dissertation summary pitch
- Anticipate trends/ opportunities

• Global Engagement Competencies:

- Cultural humility; respect for different ways of knowing, including social determinants, ethical considerations, IRB processes, building multicultural teams/ communication
- Collaboration/ team science/ strategic partnership skills

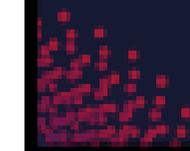


Discussion and Feedback

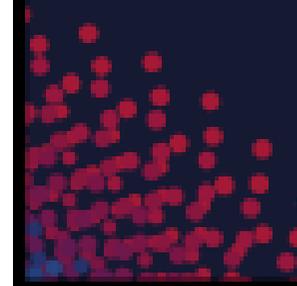


Discussion questions for your group

- What are challenges and opportunities for nursing PhD programs in research-intensive universities?
- What are long-term challenges and opportunities presented by recent PhD program innovation and the continued development of nurse scientists?
- What PhD competencies should be considered in the preparation of PhD-prepared nurses to function in current and emerging roles?
- What resources are needed (institutional, inter-institutional, professional, government) to enhance the preparation of students from research-focused PhD programs for careers as nurse scientists?



Next Steps



Question 1, Cont.

Questions created by poll results:

- What incentives can be created to facilitate meaningful mentorship experiences?
- What are new ways to recruit a diverse, high quality pool?
- Are national funding models outdated?
- What is the utility of less developed research plans with strong mentorship teams/training plans?
- How to balance goal of admitting well qualified students with faculty match
- How to provide financial support for all admitted students (to include tuition + stipend + benefits) Should this be done?