PANEL 2: Assessing and Assuring Quality in Doctoral Education Programs Globally

• Prof Hugh McKenna, Ulster University, UK: Global Assessment of Quality Nurse Doctoral Education (QNDE)

• Prof Marilyn Hravnak University of Pittsburg, USA: Quality in Curriculum

• Prof Sonja McIlfatrick, Ulster University, UK: Quality for Supervision

• Moderator: Dr Matt Howard, Director of Educational Resources at Sigma Theta Tau International Honor Society of Nursing (Sigma); Northern Kentucky University USA
Psychometric Testing of the Quality of the Research-Focused Nursing Doctoral Education Instrument

Professor Hugh McKenna
Ulster University
Calgary 2019
Research Team

- Dr Mi Ja Kim, University of Illinois, Chicago
- Dr Shake Ketefian, University of Michigan;
- Dr Kate Galvin, University of Brighton, UK
- Dr Chang Gi PARK, University of Illinois, Chicago
- Dr So Hyun PARK, Florida State University
- Dr Larisa BURKE, University of Illinois, Chicago
The evolution of the Instrument

• The literature and Government reports highlight concerns about the poor quality of some doctoral programs.

• To meet the need for a standardized instrument, nursing scholars from eight countries developed quality criteria, standards, and indicators (QCSI), (Kim, McKenna, and Ketefian 2006).

• Major elements of the QCSI included seven domains: mission, quality of faculty, the students, the curriculum, program administration, and resources.

• In 2015, the QCSI was refined by the same authors, creating the Quality of Nursing Doctoral Education (QNDE).
The Domains of the QNDE

• The QNDE instrument consists of 45 items within four domains:
  • The program domain (15 items) is concerned with aspects of the nursing doctoral program: curriculum, scholarship, learning environment, and program administration.
  • The faculty domain (16 items) evaluates the mentorship, supervision, expertise and academic work of the program faculty.
  • The resources domain (9 items) deals with resources available in the university and school/department of nursing.
  • The evaluation domain (5 items) focuses on the school/department’s evaluation system for its doctoral program.
• The QNDE instrument used a 4-point Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree).
Justification for the Study.

• Experts in seven countries confirmed the QNDE formative construct validity and reliability (Kim, McKenna, Ketefian et al 2015).

• The study found that the faculty domain had the greatest importance and the resource domain showed increased significance as the quality of the overall program improved.

• The authors raised several concerns about the QNDE instrument. The low reliability of the evaluation domain, the terminology used in some items, and multiple questions.

• There were numerous requests to use the instrument—these were refused due to the above issues.
The Study

• **Aim:** The purpose of this study was to test reliability (item and overall) and content/construct validity of the revised Quality of Nursing Doctoral Education instrument

• **Design:** A cross-sectional, quantitative research design.

• **Methods:** A total of 234 faculty and doctoral students participated: 17 faculty from 14 countries in the 1\textsuperscript{st} phase, and 111 faculty and 106 doctoral students from 20 countries on five continents in the 2\textsuperscript{nd} phase.
Conclusions

• Global representation from a total of 234 faculty and doctoral students from 20 countries in five continents established the item content validity and the item reliability, as well as construct validity of the QNDE instrument.

• This adds credibility to the tool and means that international scholars can use it with a degree of trust and confidence to ensure that their doctoral program is of high quality.

• Potential doctoral students can check if the programs they are interested in joining score high on the QNDE.
Issues raised by the study

• **Program Domain:**
  • Terminology across countries
  • Practice doctorates versus research doctorates
  • UK thesis focused doctorates vs US taught doctorates
  • The place for nursing science
  • Interdisciplinary research
  • The inclusion of emerging science (e.g. omics etc)

• **Faculty Domain:**
  • Shortage of nursing faculty to mentor/supervise
  • Supervision by non-nursing faculty
  • Topic expertise of faculty members (grants & publications)

• **Resources Domain**
  • The centralisation of doctoral studies in Universities

• **Evaluation Domain**
  • Student’s access to the University’s data on quality of doctoral program.
Quality in the Curriculum

Marilyn Hravnak RN, PhD, ACNP-BC, FAAN, FCCM
Director, PhD Program
School of Nursing
University of Pittsburgh
Pittsburgh, Pennsylvania, USA
Curriculum

- Broadly defined as the totality of student experiences that occur in the educational process
  - **Explicit curriculum**: subjects that will be taught, the identified "mission" of the school, and the *knowledge and skills* that the school expects successful students to acquire
  - **Implicit curriculum**: lessons that arise from the culture of the school and the behaviors, attitudes, and expectations that characterize that culture, the unintended curriculum
  - **Hidden curriculum**: things which students learn, ‘because of the way in which the work of the school is planned and organized but which are not in themselves overtly included in the planning
  - **Excluded curriculum**: topics or perspectives that are specifically excluded from the curriculum

Today we will focus on:
- Explicit Curriculum
- Within the Research Focused Doctorate (PhD)
We see wide curricular variation across Schools and across the Globe

- Curricular delivery
- Curricular emphasis
- Curricular content
- Curricular quality

Spectrum of curricular variation

Taught ← experienced
Teaching role ← Research role
Ad hoc ← Consensus Driven
Poor ← Excellent
Effort to bring some consensus-driven standards and recommendations to research-focused doctoral programs in nursing

• The American Association of Colleges of Nursing (AACN) in statements issues in 2001 and 2010—United States

• Quality Criteria, Standards and Indicators (QCSI) Committee of the International Network for Doctoral Education in Nursing (INDEN) (based on 2001 AACN statement)—Global
**Suggested Curricular Components—INDEN QCSI**

Table 3

<table>
<thead>
<tr>
<th>Sub-criterion: Goal and content</th>
<th>Indicators (recommended requirements)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standards:</td>
<td>Consistency with philosophy and mission of the parent institution and nursing program.</td>
</tr>
<tr>
<td>The goals of the nursing program are consistent with the mission of the parent institution and the discipline of nursing.</td>
<td>Evidence of emphasis on nursing science and research training in the curriculum, through course syllabi and student evaluations. Australia emphasizes leadership in scholarship and politics of health care. Students have an opportunity to examine faculty's research areas such as women's health, bio-behavioral science, methodological development, application to practice areas, etc.</td>
</tr>
<tr>
<td>Emphasis is on nursing science and research training</td>
<td>Core courses may include nursing science, theory development, research methodology, quantitative and qualitative research, ethical considerations, dissertation seminars, other courses such as leadership, policy</td>
</tr>
<tr>
<td>Research focus areas are presented.</td>
<td>Core courses may include nursing science, theory development, research methodology, quantitative and qualitative research, ethical considerations, dissertation seminars, other courses such as leadership, policy</td>
</tr>
<tr>
<td>Core courses and other courses appropriate for doctoral degree in nursing are described, if the program requires courses.</td>
<td>Core courses may include nursing science, theory development, research methodology, quantitative and qualitative research, ethical considerations, dissertation seminars, other courses such as leadership, policy</td>
</tr>
<tr>
<td>Ethics course on protection of human/animal subjects in research is in place</td>
<td>All students receive formal training in ethics and the protection of human and animal subjects during research. Description of courses regarding credit hours, methods of teaching and evaluation are stated. Types of courses including seminars, dissertation research are specified as well as the balance across different types of courses.</td>
</tr>
<tr>
<td>Written course descriptions are made available for students and faculty.</td>
<td>All students receive formal training in ethics and the protection of human and animal subjects during research. Description of courses regarding credit hours, methods of teaching and evaluation are stated. Types of courses including seminars, dissertation research are specified as well as the balance across different types of courses.</td>
</tr>
</tbody>
</table>

Suggested Essential Curricular Components of the Research-Focused Doctorate—American Association of Colleges of Nursing

Provides the Expected Outcomes and Core Curricular Elements to prepare graduates to function in Three Roles:

1. Develop the Science
2. Steward the Discipline
3. Educate the Next Generation

Core Coursework: **Develop the Science**
- History and Philosophy of Science
- Scientific Methods
- Advanced Research Design
- Statistical Methods
- Research Ethics
- Concepts of scholarship
- Mentored Research Experience
- Preparation of Grants and Publications
- Structured clinical experiences to inform science area

**Steward the Discipline:**
Theoretical underpinnings of nursing, culture, policy, professional values, scholarly writing, leadership and professional issues

**Educate Next Generation:**
Communication, teamwork, mentoring, art & science of teaching, teaching experiences
Example Curriculum (University of Pittsburgh)

• Post BSN to PhD: 72 credits

• Research Core: (16 cr)
  • Philosophical Underpinnings Research, Theoretical Foundations
  • Research Design and Methods
  • Research Measurement
  • Intervention Development
  • Advanced Quantitative Analytic Methods

• Professional Development Core (6 cr)
  • Responsibilities and Activities of Scientists I and II, Art & Science Teaching

• Statistics Core (9 credits)
  • Parametric, Nonparametric, Regression

• Personalized Scientific Inquiry (41 cr)
  • Research Apprenticeship 6 cr
  • Dissertation 12 cr
  • Courses chosen by student relative to their research focus area, methods, statistical approaches, developmental needs

Our Curriculum Committee maps each Core Course Objective and Evaluation component back against the Roles and Expected Outcomes to assure we are addressing all recommended
**Example of a Course Mapped to Roles and Outcomes**

**NUR 3285: Philosophical Underpinnings of Nursing Research (PhD Core 1)**
3 cr.

**COURSE OBJECTIVES**
Upon successful completion of this course, the student will be able to:

- Relate the contributions of philosophy to scientific advancements and to global scientific reasoning. [I.1.2; I.1.4]

- Compare and contrast world philosophies as advisory to the evolution of nursing science. [I.1.1; I.1.2; I.1.3; I.1.4]

- Analyze the bases and applicability of prominent philosopher's and their thinking to modern-day nursing. [I.1.2; I.1.4]

- Analyze the nature and activity of science and demonstrate application to the generation of nursing knowledge and science. [I.1.2; I.1.3; I.1.4; I.1.5]

- Appraise continuities and discontinuities as part of knowledge structuring for advancing science. [I.1.2; I.1.4; I.1.5]

**EXPECTED OUTCOMES PhD PROGRAM IN NURSING (The Research-Focused Doctoral Program in Nursing: American Association of Colleges of Nursing 2010):**

I. Develop the Science (ROLE)

1. Expected Outcomes (ROLE)
   1.1 Master in-depth knowledge in a substantive area
   1.2 Appreciate the history and philosophy of science
   1.3 Understand the evolving nature of the nursing discipline
   1.4 Critique and integrate different science perspectives in the conduct of research
   1.5 Generate new ideas based on a critical evaluation of existing knowledge
Curriculum defined as the totality of student experiences that occur in the educational process

Other experiences outside of Coursework and Dissertation

• Research Apprenticeship
• Teaching Assistantships
• Grant writing and submission; implementation
• Peer mentorship of “academically younger” students
• Participation in graduate student government and organizations
• Participation in Research series in other Schools and Universities
• Meetings and Conferences (budget $, Euro, RMB etc)
However, Quality in the Curriculum does not stand alone, and is ultimately impacted by the quality of the other Essential Elements elements for research-focused doctoral programs in nursing (QCSI and AACN)

- **Mission** of the Parent Organization
- Quality of the **Faculty** (as a whole, individually)
- Quality of the **Students** (as a whole, individually)
- **Curriculum**
- Quality of the **Resources and Infrastructure**
- Presence of an ongoing quality **evaluation** process, and readjustment/realignment
Ongoing Evaluation of Quality in the Curriculum—Mechanisms and Metrics

- **Internal**
  - Curricular Content
    - Curriculum Committee—periodic evaluation of individual courses (triennial review) and curriculum as a whole
  - Teaching
    - Student evaluation (per course, end of program)
    - Faculty Peer evaluation
    - Student outcomes and scholarly productivity (during program, post-grad)

- **External Review (invited)—university requires all PhD programs prepare a self-study and invite enteral review every 5-10 years**

- **External review (uninvited)**
  - QS World University Rankings (academic reputation, employer reputation, # citations per paper, H-index of faculty, students, graduates)
  - National Research Council (scholarly and reputation ranking, student quality and diversity, scholarly productivity of faculty and students)
  - Amount of Research $$$ obtained (individuals, School)
Ultimately the quality of the curriculum is judged by the ability of the graduates to achieve mastery of the knowledge and skills that students are expected to acquire, successful performance in their post-graduate roles, and ongoing scholarly productivity and advancement.

Let's continue to work to achieve high quality nursing research education and practice globally.
Quality Supervision/mentorship

Professor Sonja McIlfatrick RN PhD
Head of School
School of Nursing
Ulster University
President INDEN
Supervision/Mentorship

Supervision: “Management by overseeing the performance or operation of a person or group”

Mentorship: Typically a more experienced individual who acts as a teacher, guide, advocate, role model for someone less experienced (protégé) in a discipline or organization

Key components: sharing expertise and experiences, guiding, overseeing, sponsoring

Distinctive pedagogy for doctoral education

Pedagogical/research nexus
Mentorship for Doctoral Education

Multifaceted definition:

• take an interest in developing another person’s career and well-being.

• have an interpersonal as well as a professional relationship with those whom they mentor.

• advance the person’s academic and professional goals in directions most desired by the individual.

• tailor mentoring styles and content to the individual, including adjustments due to differences in culture, ethnicity, gender and so on.
Evidence base?

• Indicates mentorship strongest factor leading to enrolment on a doctoral program (Mentes, 2015; Nehls, 2016) and that the quality of supervision is the key factor determining the successful and timely completion of a PhD (Knowles, 1999).

• “the quality of the program is largely determined by the quality of faculty, including their credentials, their research and publication record, and their supervision and mentoring of students” (Ketefian, 2001)
The components of good PhD supervision

*We often parent the way we were parented…*

Reflect on your own experience of supervision as a PhD researcher

- Positives?
- Negatives?
What’s your supervisory approach?
Faculty Domain (16 items)

Have earned doctorates in nursing or related fields (subject expertise)

Have demonstrable expertise in a research area with external funding record, and with student fellowships or studentships;

Have evidence of scholarship and esteem (i.e. publication and presentations)

Demonstrate supportive supervisory and mentoring skills for students – supervised to successful and timely completion (supervisory skills & expertise)

Leadership: faculty activity engaged in shaping the discipline

Ongoing training and development for supervisors
Faculty Domain (contd)

• Ongoing training and development for supervisors
• Devote significant time to supervising students’ research
• Provide timely and quality feedback
• Resource: use resources within the university and broader community to support the doctoral program goals
• Fulfill diverse responsibilities appropriate for university faculties (e.g., teaching, research, administration, service, and mentoring)

• QUESTION: IS THIS THE COMPLETE PICTURE?
Supervision: Applying the Iceberg Principle

1. ICE only forms in the correct Environment
2. Tip of the iceberg is what we see
   ➢ Visible Outcomes
3. Most of the iceberg is hidden. These other aspects need consideration:
   • Impact
   • Candidate Skill Development
   • Wider Engagement
Future Considerations

• Faculty vacancy rate: shortage of qualified supervisors and mentors

• Interdisciplinary research- implications for maintaining integrity of discipline?

• Importance of partnerships and collaborations
  • Between professions and disciplines
  • University and industry partnerships
  • Local, international and global

• Emphasis on efficacy and effectiveness
  • Time to completion
  • Program equivalence
  • Faculty workloads
  • Supervisor capacity — quality v’s quantity
  • KPIs to assess supervisors — CPD and training needed
The PhD journey from a supervisor’s perspective

The Rollercoaster
References


