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Mentoring in Research Doctorate Nursing Programs and Students’ Perceived Career Readiness

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Introduction:

Research doctorate nursing programs are expanding in an effort to double the number of doctoral-prepared nurses by 2020 (IOM, 2011). But, whether students are ready for their subsequent careers in nursing science is not clear. Faculty play a key role in preparing students through advising and mentoring. However, there is little empirical evidence of the specific contributions of mentoring to development of doctoral nursing students and their career readiness. Thus, the National Mentor Study identified characteristics and practices of nursing PhD students and their advisors in the United States and examined associations between mentoring relationships and career readiness.

Methods:

We conducted a nationwide descriptive, cross-sectional study of PhD students using an electronic survey platform. Deans and Program Directors of the 129 research-focused doctoral nursing programs identified by the American Association of Colleges of Nursing (AACN) were contacted and students from 64 schools responded, which yielded 380 PhD student study participants. They reported: 1) demographic, academic, and mentee characteristics 2) mentor characteristics and practices 3) self-proficiency based on self-rating of 20 scientific skills and competencies 4) synchronization between desired and actual advising style and 5) perceived career readiness. (Advisors were not invited to participate in the survey.)

Mentor characteristics included participant reports of how they felt their advisor perceived them on motivation, organizational skills, dependability, and openness to criticism. Mentoring characteristics included participant ratings of their advisors on being expert in their field, accessible, approachable, supportive, and a good listener. Mentoring practices included participant reports of advisor practices related to scholarly productivity, career planning, and emotional support. Desired and actual advising style was reported by students and degree of synchrony was calculated. Perceived career readiness was a single item rating on a 1 to 100 scale.

The career readiness score was dichotomized and study participant characteristics were examined according to their career readiness classification. We performed simple and multivariable logistic regression to examine the relationship between career readiness and important independent variables, adjusting for demographic and academic variables.

Results:

Selected descriptive findings

About half of the participants (51%) planned to seek research and teaching positions post-graduation.
Eighty-one percent of student participants worked. The average work load of those students was 32 hours per week. Ninety percent of all participants cared for dependents or had other responsibilities outside of school.

A minority of respondents (16%) knew of published guidelines on mentoring for their school and 60% were not sure if such guidelines existed. Forty-five percent of students reported that their advisor fulfilled both advising and mentoring roles. At least 70% of student participants agreed or strongly agreed that their advisor would rate them as having desirable mentee characteristics. And at least 64% of student participants agreed or strongly agreed that their advisor had desirable mentor characteristics. There was a wider range of student participant ratings of their advisor on mentoring practices (22-67%). For example, at the low end of the range, 22% of students agreed or strongly agreed that their advisor helped them draft their curriculum vitae and at the high end of the range, 67% of student agreed or strongly agreed that their advisor discussed concerns about their research. Twenty-seven percent of students reported synchrony between their desired advising style and the actual style of their advisors; 55% of students preferred a hands-on advisor and 7% desired a hands-off style. The mean perceived career readiness score was 70.5 22.7 (range: 0-100), and a majority of students (86.8%) had a score of at least 50.

Logistic regression findings

In simple (OR 1.31, p=0.001) and multiple logistic regression (OR 1.29, p=0.027), when advising style was in synchrony with student advising preference, students had a greater likelihood to perceive that they were ready for their desired career. Self-proficiency was also significantly associated with perceived career readiness in both simple (OR 1.07, p<0.001) and multiple logistic regression (OR 1.06, p<0.001); wherein, the higher the self-proficiency score the more likely the students were to perceive that they were ready for their desired career.

Mentoring practices, student age, and how far along students were in their PhD program were all significantly associated with perceived career readiness in simple logistic regression, but not in multiple logistic regression. However, because our sample was insufficiently powered to detect these relationships, we are unable to say conclusively that the relationships do not exist.

Discussion:

We found that while students rated themselves and their mentors highly for their mentoring relationship, there was uneven mentoring on objective tasks. For example, our results suggest that they receive limited support with preparation for their job search, and more support in monitoring progress, providing performance feedback, and discussing concerns about the student's research.

As schools of nursing and funding mechanisms seek to shorten the duration of PhD programs, the goal of providing thorough mentoring for students may be even more difficult to achieve. Developing research and teaching skills for research-focused faculty positions takes time. One solution may be to discuss mentoring topics in groups, such as in required seminars for PhD students. After discussing the topic in a group, students can seek more detailed discussion of specific topics with their advisor and/or mentor. Written guidance would also help students identify topics to raise with their mentor proactively. Without guidance, mentoring interactions may focus on urgent matters instead of longer-term issues.

Our findings suggest a complex relationship between mentoring and career readiness for PhD nursing students. Synchrony between desired and achieved advising style (i.e., hands-off and hands-on styles), and self-proficiency in scientific skills and competencies were shown to increase the likelihood of career readiness. Mentoring practices, student age, and duration the student was in the program may also have an influence on career readiness even though our study failed to demonstrate that these factors improve the odds of career readiness. These factors may, however, influence the student's perception of the quality of the mentoring relationship. Other factors may also play a role, such as the degree to which...
students work and fulfill responsibilities outside of their education. Mentoring that includes discussion of personal problems may help support students with personal problems that result from these additional demands.

The 2001 IOM report calls for the preparation of many more doctoral-prepared nurses to fill the nurse faculty gap. Our study found a substantial proportion of students plan to seek research and teaching positions in an academic setting. For those students to obtain positions, mentors will need to address broad topics such as a strategy for their job search, and specific skills, such as curriculum vitae preparation and interviewing skills.

**Implications:**

The findings support the importance of mentoring and thus, management decisions at the level of university or school of nursing should consider basing enrollment targets on a mentor-to-student ratio that optimizes high quality mentoring. Considering mentoring in management decisions could inform hiring plans, program growth targets, and budget projections.

Developing, disseminating, and promoting guidelines on mentoring could help faculty and students understand the importance, characteristics, and practices of mentoring while simultaneously establishing mentoring norms for faculty and students.

Although the study only included participants from the United States, the findings may relate to the universal need for effective mentoring that is important globally.

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**Title:**

Mentoring in Research Doctorate Nursing Programs and Students' Perceived Career Readiness

**Applicable category:**

Academic, Students, Leaders

**Keywords:**

career readiness, mentoring and research doctorate nursing programs

**References:**


Abstract Summary:

PhD nursing programs are expanding in number and shortening in duration. Mentoring is essential for student development, but the relationship between mentoring and career readiness is unclear. This nationwide survey of PhD nursing programs in the United States on mentoring and career readiness has implications for practice, management, and policy.

Content Outline:

1) INTRODUCTION
   a) Research doctorate nursing programs are expanding in the United States in response to the projected shortage of nursing faculty.
   b) There is a lack of knowledge on the relationship between mentoring practices and students’ perceived career readiness.

2) METHODS
   a) A descriptive, cross-sectional survey design
      i) Nationwide survey of research doctorate students on mentoring practices and career readiness
      ii) 129 AACN-accredited schools contacted
   b) Measurement
      i) Self-reported demographic, academic, and mentee characteristics
      ii) Mentor characteristics and practices
      iii) Self-proficiency (scientific skills and competencies)
      iv) Synchronization between desired and actual advising style
      v) Perceived career readiness
c) Statistical Analysis
   i) Descriptive statistics
   ii) Bivariate analysis according to career readiness status
   iii) Simple and multivariable logistic regression

3) RESULTS
   a) Sample
      i) 380 respondents
      ii) Participants represent 50% of schools that were contacted
   b) Descriptive findings
      i) 51% planned to seek research/teaching position post-graduation
      ii) 81% of students worked an average of 32 hours/week and had other responsibilities
      iii) Mean self-proficiency score: 87.9 ± 13.4 (range: 20-120)
      iv) 16% of students aware of published mentoring guidelines
      v) Advisor-Mentor findings (45% reported that advisor also served as mentor)
      vi) Mentee characteristic self-rated as desirable by at least 70% of students
      vii) Mentor characteristics rated as desirable by at least 64% of students
      viii) Wide range of responses for desirable mentor practices (22-67%)
   c) Findings from logistic regression
      i) Relationships between synchrony between desired and actual advising style and career readiness, and between self-proficiency and career readiness were significant in simple and multiple logistic regression analysis
      ii) Mentoring practices, student age, and how far along students were in their PhD program were all significantly associated with perceived career readiness in simple logistic regression, but not in multiple logistic regression.

4) DISCUSSION
   a) Students rated themselves and their mentors highly for their mentoring relationship, but mentoring on objective tasks was rated unevenly.
      i) Students receive limited support with preparation for their job search
      ii) Students receive more support in monitoring progress, providing performance feedback, and discussing concerns about the student’s research.
   b) Shortening duration of research-focused PhD nursing programs puts a heavy burden on mentors to address all relevant mentoring practices in a compressed time-frame to ensure career readiness. Strategies include—
      i) Discuss mentoring topics in groups, such as in required seminars for PhD students. Students then seek detailed discussions with advisor/ mentor
      ii) Provide written guidance so students can identify topics to discuss
   c) Synchrony between desired and achieved mentoring style and self-proficiency may influence perception of mentoring relationship quality.
   d) Mentoring practices, student age, how far along students were in their PhD program, and other factors may be involved in the complex relationship between mentoring and career readiness
      i) Most students work considerable hours outside of school
      ii) Most students have multiple responsibilities outside of their education
   e) Substantial proportion of students plan to seek research and teaching positions in an academic setting.
      i) Students need support in developing a strategy for their job search and specific skills, such as curriculum vitae preparation and interviewing skills.
   f) Understanding the demands of mentoring has implications for management decisions regarding enrollment, hiring plans, program growth targets, and budget.
   g) Establishing clear expectations of advisors for mentoring and of students to seek support on specific topics may result in greater mentoring satisfaction and career readiness.
5) IMPLICATIONS
   a) Practice
      i) Management decisions
         (1) Base enrollment targets on mentor-to-student ratio to optimize high quality mentoring.
         (2) Mentoring goals should inform hiring plans, growth targets, and budget projections.
      ii) Mentoring guidelines: Develop, disseminate, and promote guidelines on mentoring to help faculty
          and students understand the importance, characteristics, and practices of mentoring while establishing
          norms for faculty and students.
   b) Global application
      i) Findings may relate to the universal need for effective mentoring that is important globally.

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