Abstract Summary:
Mentors’ qualities are elements that influence the doctoral education experience and may be essential for doctoral student’s success. This descriptive correlational study provides evidence about the relationship between mentees progression in a doctoral program and their perception of mentor’s skills.

Learning Activity:

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVES</th>
<th>EXPANDED CONTENT OUTLINE</th>
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<tbody>
<tr>
<td>1. The learner will be able to identify the mentor’s qualities related to selected indicators of mentee progression along doctoral studies.</td>
<td>To meet the learning objectives, the author will present slides containing research findings. At the end of the presentation, the author will discuss the findings and give recommendations for future studies</td>
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<tr>
<td>2. The learner will be able to identify the ideal mentor attributes reported by nursing doctoral students.</td>
<td>To meet the learning objectives, the author will present slides containing research findings. At the end of the presentation, the author will discuss the findings and give recommendations for future studies</td>
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Abstract Text:
Purpose:
The Institute of Medicine (2010) called for the doubling of nurses with a doctorate by 2020, to add to the cadre of nurse faculty researchers, with attention to increasing diversity. In light of a looming nursing shortage, nurses with a doctorate are needed to educate the future generations of nurses. Nurse educators are challenged to meet the number of new nurses to remediate the nursing shortage (projected at 11% or more annually in every state, According to the American Nurses Association) and educate the next generation with the highest levels of leadership skills to provide evidence-based, patient-centered health care (The Institute of Medicine, 2010). However, the number of graduates from nursing doctoral programs is not enough to meet the demand. High dropout rates and delays to degree are common issues in doctoral programs, including nursing. Seven-year completion rates for life sciences students (including health sciences) is 52% and the seven-year attrition rate is 31% (Sowell, Allum & Okahana, 2015). These numbers point out the need of more studies concerning the factors that impact nursing doctoral students’ motivation to continue or leave their current programs of study. In this regard, we highlight the role that may play mentoring. Previous studies have shown that the relationship between doctoral students and mentors may influence the quality of the doctoral education experience (Nehls, Barber & Rice, 2016). In this regard, the evidence indicates that positive mentorship may be associated to successful socialization into the department and discipline, and timely completion of the degree. On the other hand, negative mentoring is strongly implicated in many student’s decisions to leave doctoral study. This emphasizes the necessity to conduct structured mentoring interaction to increase student retention and degree completion. However, evidence regarding the best mentors’ qualities for ensuring progression of nursing students in our PhD program is scarce. To design effective mentoring programs there is a need to explore mentors’ qualities and identify those skills and attributes that are more related to mentee satisfaction and progression during the doctoral program. Therefore, we conducted a descriptive correlational research study that builds on a previous pilot study to explore the relationship between mentors’ qualities and key indicators that link successful progression and completion of a nursing doctoral program.

**Aims.** The purpose of this study was to identify the relationship between mentee’ perception of mentor’s qualities and selected indicators of progression during doctoral studies. There were three specific aims: 1) to determine students’ perception of mentor’s skills performance (Maintaining effective communication, aligning expectations, assessing understanding, fostering independence, addressing diversity, and promoting professional development competencies) time to present first and second examination; 2) to determine the relationship between ideal mentor attributes perceived by graduates and time to degree (in years); and, 3) to compare ideal mentor attributes (Integrity, guidance and relationship) reported by doctoral students according their status in the PhD (First, second, third year and alumni).

**Methods:**

The study was conducted at a public university in NYC. Design was descriptive correlational. Sample consisted of 38 students and 13 graduates from a Nursing PhD Program (n = 51) who received or were receiving mentorship during their doctoral education. After the Institutional Review Board approved the study, the researchers invited students (in person) and alumni (e-mail) to participate in the study. Students who accepted to participate signed a consent form and completed a socio-demographic form (7 items) and paper-pencil version of the Mentoring Competency Assessment Inventory (MCA; 26 item; Cronbach’s alpha = .976) and the Ideal Mentor Scale (IMS; 34 item; Cronbach’s alpha = .942). Graduates completed the instruments through SurveyMonkey. Data collection took about 20 minutes and was conducted from December 2015 to March 2016. Participation was anonymous. Data analyses for the socio-demographics included descriptive statistics (percentages, measures of central tendency and dispersion). Kolmogorov-Smirnov test was performed to select the appropriate inferential statistic tests. Non-parametric tests were selected, as the variables were not evenly distributed. For the first and second aims of this study Spearman Correlation Coefficient was used. To respond the third aim, Kruskal-Wallis test was performed. Further statistical testing of the MCA and IMS included reliability analysis (Cronbach Alpha Coefficient). All data analyses were performed using the Statistical Package for Social Sciences (SPSS) for Mac OSX version 20.0.
Results: Most participants were identified as female (84.3%) and more than half of the sample were older than 46 years (76.5%). Most participants identified themselves as Caucasian/White (45.1%), Black or African American (21.6%) or decided not to answer (15.7%). Regarding the main objective of this study, there were three moderate-intensity significant coefficients indicating a negative relationship between number of times First Examination was presented, and Maintaining effective communication ($r_s = - .438, p = .022$), aligning expectations ($r_s = - .449, p = .019$), and addressing diversity competencies ($r_s = - .382, p = .049$). Those coefficients suggest that when participants presented more times the First Examination (indicator of delayed progression in the program), they also referred lower scores on the aforementioned mentors’ competencies. There were not significant relationships between mentors’ competencies and time to Second Examination. On the second aim, there was a positive coefficient between IMS Relationship subscale and the semester the graduate was enrolled when degree was awarded ($r_s = .639, p = .019$). This means that participants that took more time to degree are those who scored higher in the relationship subscale. Finally, Aim 3 consisted of comparing the perception of ideal mentor attributes among mentees from first, second, third year and alumni. Only scores of Guidance subscale achieved statistical significance ($H = 9.545, p = .048$). The more advanced are students in the doctoral program, lower scores of guidance they expect of their ideal mentor.

Conclusion:

The outcomes of this study demonstrate that there is value in providing mentoring and promoting successful relationships for students who are pursuing advanced doctoral education in nursing. These findings coincide with others studies (Nehls, Barber & Rice, 2016) that have suggested that student-faculty mentoring relationship was an important factor on progression and attrition of PhD programs. However, it is important to note that specific factors like mentors’ assistance and, research and interpersonal connection may play a critical role in doctoral progression as well. It is required alternative approaches and further analyses to know our student’s perception regarding their mentoring relationship. A limitation of this study is the generalization of the findings because the participants were selected by convenience. Thus our findings may be generalizable only to other similar populations. In this regard it is not possible to know whether individuals who rejected and those who participated had a comparable experience during their doctoral education.