

45th Biennial Convention (16-20 November 2019)

Assessing the Impact of Telehealth Objective Structured Clinical Evaluations (OSCEs) in Graduate Nursing Education

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Introduction: Simulation in nurse practitioner (NP) education allows students to perform clinical skills in a safe environment (Miller & Carr, 2016). Through objective structured clinical examinations (OSCEs), students can apply knowledge obtained in the didactic environment to a clinical scenario (Beckham, 2013; Rutherford-Hemming, & Jennrich, 2013). In NP curricula, OSCEs have been used to evaluate history-taking and physical assessment skills, and to integrate cultural humility (Loomis, 2016; Ndiwane, Baker, Makosky, Reidy, & Guarino, 2017). The National Organization of Nurse Practitioner Faculties (NONPF) supports the incorporation of telehealth into nurse practitioner education in the didactic or practicum settings and/or simulation experiences (Rutledge, Pitts, Poston, & Schweickert, 2018).

Purpose: The purpose of this project is to evaluate the impact of telehealth simulation on students in a NP program.

Methods: Twenty-eight NP students in their first clinical course participated in the telehealth OSCE. A patient was available remotely, and a faculty member acted as the nurse and telepresenter. The grading rubric was provided to the students prior to the telehealth simulation. Students conducted a telehealth visit and then presented their diagnosis and plan to the faculty member for feedback. Students completed an online survey about the impact of telehealth OSCE simulation both before and after completion of the OSCE simulation. The survey was adapted from an instrument developed by Palmer and colleagues (2017), and the authors granted permission for utilization of tool elements in this investigation. Survey items were scored using a 5-point Likert scale (1- *strongly disagree*; 2= *disagree*; 3 = *neutral*; 4 = *agree*; 5 = *strongly agree*). Item scores were reported as *medians* and were analyzed as ordinal data. Pre-and post-survey responses were compared for statistically significant differences using Wilcoxon signed-rank testing. The post-survey included five open-ended questions. Directed content analysis of participant responses to the qualitative items was conducted to identify themes.

Results: Twenty-three students completed the pre-survey, and 22 students completed the post-survey. Thirteen of the 15 quantitative telehealth perception items yielded statistically significant differences in pre- and post-survey participant responses. The students' general understanding of the field of telehealth was significantly greater after the telehealth OSCE experience ($Mdn = 4.00$) than before the OSCE experience ($Mdn = 3.00$), $z = -3.11$, $p = 0.002$, $r = -0.66$. Directed content analysis revealed four themes: usefulness of telehealth, benefit in role preparation, incorporation of technology into experiential learning, and perceptions of the learning experience.

Discussion: In NP education, the use of telehealth simulation is an effective strategy to assess clinical competency, provide individualized feedback, and ensure students are utilizing evidence-based practice. Telehealth OSCEs provide students with direct experience with telehealth.

Title:

Assessing the Impact of Telehealth Objective Structured Clinical Evaluations (OSCEs) in Graduate Nursing Education

Keywords:

nurse practitioner education, simulation and telehealth

References:

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Abstract Summary:

The National Organization of Nurse Practitioner Faculties (NONPF) supports the incorporation of telehealth into nurse practitioner education. In NP education, the use of telehealth simulation is an effective strategy to assess clinical competency, provide individualized feedback, and ensure students are utilizing evidence-based practice.

Content Outline:

1. Elaborate on the role of telehealth in nurse practitioner education.
1. Simulation in nurse practitioner (NP) education allows students to perform clinical skills in a safe environment
2. The National Organization of Nurse Practitioner Faculties (NONPF) supports the incorporation of telehealth into nurse practitioner education.
2. Describe how a telehealth objective structured clinical examination (OSCE) was implemented in a graduate nurse practitioner course.
 1. Twenty-eight NP students in their first clinical course participated in the telehealth OSCE. A patient was available remotely, and a faculty member acted as the nurse and telepresenter.
 2. Telehealth OSCEs were conducted using a video conferencing system, and utilized representative images and sound files from internet sources.
 3. Students conducted a telehealth visit and then presented their diagnosis and plan to the faculty member for feedback.
3. Analyze graduate nursing students' perceptions of a telehealth OSCE simulation experience.
 1. Thirteen of the 15 quantitative telehealth perception items yielded statistically significant differences in pre- and post-survey participant responses. The students' general understanding of the field of telehealth was significantly greater after the telehealth OSCE experience ($Mdn = 4.00$) than before the OSCE experience ($Mdn = 3.00$), $z = -3.11$, $p = 0.002$, $r = -0.66$.
 2. Directed content analysis revealed four themes: usefulness of telehealth, benefit in role preparation, incorporation of technology into experiential learning, and perceptions of the learning experience.
 4. Discuss implications for nurse practitioner education based on research results and literature findings.
 1. As the delivery of healthcare continues to evolve through telehealth, NP programs must stay current in their preparation of graduates through didactic, clinical, and simulation experiences.
 2. Telehealth OSCEs provide nurse practitioner students with direct experience with telehealth.
 3. Telehealth OSCEs are a way for NP programs to integrate telehealth content into graduate nursing education.

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