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Amy Graham

James Madison University, grahamax@jmu.edu

Andrea Knopp

James Madison University, knoppaf@jmu.edu

Sarah Stowell

James Madison University, stowelse@jmu.edu

Carolyn Schubert

James Madison University, schubecf@jmu.edu

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A Scaffolded Simulation Curriculum: Translating Simulation with Standardized Patient Encounters into Clinical Practice

Amy C. Graham, PhD, FNP-BC; Andrea Knopp, PhD, MSN, MPH, FNP-BC; Sarah Stowell, MSN, RN, ANP-BC, WHNP-BC; Carolyn Schubert, MLIS

BACKGROUND

- Simulation with standardized patients (SPs) has demonstrated validity and reliability in assessing competency in nursing and medical students.
- Previous simulation literature focuses on Kirkpatrick's Level I & II: students' immediate perceptions or learning after a single simulation experience.
- More research is needed at the upper levels of Kirkpatrick's framework to address translation of learning into consistent behavior (Level III).

PURPOSE

The purpose of this longitudinal study was to implement scaffolded simulations that followed INACSL standards of best practice into an APN curriculum, evaluate students' perceptions of simulation, and explore the qualitative reflections of students about the role of simulation in preparing them for practicum experiences.



METHODS

- **Participants:** FNP students, n = 33, 92% female, mean of 5.71 yrs. experience as RN
- **Intervention:** multi-semester, leveled, formative simulation experiences with standardized patients and structured debriefing with PEARLS
- **Measures:** *Simulation Effectiveness Tool-Modified*: students' perceptions of the effectiveness of simulation on learning
- **Focus Groups:** question prompts to assess Kirkpatrick's Model Level 3, post-intervention behavioral change, and translating simulation experiences to the practicum setting
- **IRB** approved

SIMULATION EXPERIENCES

Academic Year 1	Academic Year 2
<p><u>November</u> Simulation #1: Adult Comprehensive Physical Exam</p> <p><u>January</u> Simulation #2: OSCE: Students progress through 3 stations of straightforward acute, problem focused chief complaints.</p> <ul style="list-style-type: none"> • One student assumes role of NP taking H&P, 2 students observe. • After the H&P, all students collaborate to establish a diagnosis and plan of care. • Lead student presents case to the faculty. <p><u>March</u> Simulation #3: Male GU, GYN & Breast Exams</p>	<p><u>June</u> Simulation #4: Well Child History & Physical Exam (ages 2-12)</p> <p><u>August</u> Simulation #5: Complex Chronic Care Visit on a patient with Type 2 Diabetes, Hypertension, Dyslipidemia, and Tobacco Use Disorder</p> <p><u>October</u> Simulation #6 Obstetrics OSCE: 16-week antepartum, 35-week antenatal, 12-week postpartum transition to primary care</p> <p><u>March</u> (added after focus groups) Simulation #7: Delivering Difficult News</p>

RESULTS

Simulation Effectiveness Tool – Modified (5 = strongly agree)

- Highest rated subscales: prebrief (M = 4.26, SD = 0.50) and debrief (M = 4.22, SD = 0.72)
- Highest rated item: "I had the opportunity to practice my clinical decision-making skills" (M = 4.56, SD = 0.49).

THEMES & CODES

- **Authenticity:** real-world workflow, timeframe, structure of setting & visit, history questions, and interaction with a real person.
 - "Helped me get the feel of what I could expect in clinicals."
 - "Eye opener for all that was involved."
- **Confidence:** reassurance, safety, practice, comfort, and feedback.
 - "Doing it gives you that practice and that feeling of comfort and confidence that you need to go into your clinicals."
 - "You show yourself that you can do it."
- **Harmonization:** merging of knowledge, skills and attitudes; congruence; leveling up; opportunities.
 - "You're actually putting the whole picture together in your head of all the things that need to be done."
 - Honestly, sometimes it takes me to make a mistake to truly learn from it. So making it in simulation and then realizing you know how to fix that mistake and never do it again, kind of

DISCUSSION

Implications for Education

- **More** simulation experiences
- **Scaffold** learning, starting with formative experiences
- **Structured Debriefing** is essential to learning and translating knowledge to clinical practice
- Include multiple sources of **feedback** (peers, faculty, and standardized patients)
- Include **complex situations**: "difficult" patient, interpreters, social determinants of health, mental health, difficult conversations, etc.

Future Directions

- Develop evaluation tools for scaffolded learning
- Develop a Model for Competency-Based Education experiences with simulation using Kirkpatrick framework
- Refine Feedback tools for peers, faculty and the standardized patients

CONCLUSION

- Kirkpatrick Level III evaluation approach provided new insights into
 - long-term changes in identity and role
 - confidence in self across clinical scenarios and practice environments
 - evidence supporting the positive impact of simulation in NP education
- Student focus groups were a sustainable approach to evaluate both simulation and practicum from a student-centered, outcomes-focused perspective