2016 Full Submission

Title: LeaderSIM: A Team Approach to Using Low-Fidelity Simulation to Enhance Patient and Staff-centered Communication

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Focused Question: Is low-fidelity simulation, specifically use of standardized patients/persons, an effective method of improving learning & confidence with patient and leadership rounding?

Background: Nurses and Physicians serve in leadership roles in the provision of patient care and communication with staff, patients and families. Across DUHS, there are inconsistencies in the practice of patient rounding, bedside shift report, and staff rounding. These practices are evidence-based and have been linked to increased perception of quality on the part of the patient and family. Additionally, engagement of healthcare staff has been linked to improved patient outcomes. Simulation has been utilized successfully in the past to increase not only the skills of the learner, but the confidence as well. By increasing the skill and confidence of the staff, manager, and physicians in everyday scenarios involving complex communication situations, best practices will be hardwired into the daily work of nurses and physicians, and increase the patient and staff-centered communication that is critical to the care of patients and families within the health system.

The standardized patient/person (SPP) simulation is a well-established and reliable tool for teaching and appraising competency across many health professions. The advantages of SPP-based exercises are that they can be developed to assess multiple skills at the same time, they use a low-level of simulation fidelity, groups of learners are able to compare and debrief related to the findings, and learners generally enjoy the active learning that is associated with this form of role-play. The Hospital Value-Based Purchasing (VBP) Program is a Centers for Medicare & Medicaid Services (CMS) initiative that rewards acute-care hospitals with incentive payments for the quality of care they provide to people with Medicare (Giordano et al., 2009). The VBP program uses, in part, data from the Hospital Consumer Assessment of Healthcare Providers (HCAHPS) survey, which includes many questions focused on patient-centered communication (Giordano et al., 2009).

Simulation has been widely used as an educational tool in both "live" and "recorded" educational offerings (Vaniaere et al, 2012). The evidence suggests that human simulation methodology is effective for both new knowledge acquisition and knowledge retention (Gair, 2012). Sharpnack, et al, (2013)

utilized the standardized patient approach to teach leadership competencies to nursing students. The authors suggest that using complex scenarios and standardized patients advanced the learning and application to clinical practice, and could perhaps even facilitate the transition to practice for new graduate nurses.

In a study by Pollard and Wild (2014), the authors implemented this pedagogical style of delivery to nursing students in their leadership course, emphasizing that the focus on leadership as a relational practice was extremely useful and that they felt the decisional complexities experienced in the learning were likely the same ones that they might encounter in their future practice. While the authors reported great success with the course and implementation, a significant gap was identified around the lack of integration of an interprofessional component of the practice.

To test the findings, DUHS engaged in a pilot project that could be done quickly that would test the reactions of practicing health professional with the technique using low fidelity simulation using SPPs for leadership development. In June 2016, fifteen students from the Watts School of Nursing were prepared to be standardized patients and persons for a 4-hour exercise with clinical nurse leaders across DUHS. The results were similar to the literature. The clinical leaders reported positive feedback related of how realistic the scenarios were, how they could identify more easily how to utilize leadership skills in their next difficult clinical encounter, and that the debriefing by the trained nursing faculty helped them prepare for future situations with confidence in their own abilities to communicate. A gap was identified that an interprofessional experience would be more effective.

According to MacLeod and Sharkey (2013), successful, safe and efficient health care is delivered within a â€œcomplex maze of effective relationshipsâ€ and that to imp must improve the communication skills and awareness of the team dynamics that impact our daily work, including patient outcomes. Low fidelity simulation experiences using standardized patients and persons have been documented within the literature as an effective learning mechanism for medical and nursing students. The pilot in July 2016 demonstrated positive initial responses to use of this pedagogy with practicing clinicians.

We believe that this model could be used with health professions students as well as practicing clinicians.

We propose to build on this initial work and develop low fidelity simulations where staff, leaders, and physician teams are able to practice complex communication skills within a safe and secure learning environment.

Specific Aims:

1. Pilot a novel leader (MD) to leader (RN) team based simulation program aimed at nurses and physicians that has the potential for training both students and clinicians across DUHS.
2. Assess for changes in attitudes of the participants related to (a) confidence and (b) skill with rounding on staff and patients as well as facilitation of bedside shift report.
3. DUHS Leaders will apply knowledge gained through this program to improve both clinical and academic work settings.

Methods: The design will be an experimental design using an educational intervention.
Program:
The educational intervention is comprised of four simulated patient and staff scenarios. Prior to the sessions, the participants will complete a competency worksheet where they self-rate themselves as novice, competent or expert with a series of fifteen (15) healthcare competencies developed and tested by the American Hospital Association.
The proposed project will include four cohorts of eight (8) participants for a total of 32 participants. Participants in each cohort will attend a five-hour LeaderSIM program and progress through four (4) simulated scenarios. Pre-assignment reading will include a review of the RELATE communication model and the ISHAPED bedside shift report mnemonic. The participants will include nurses and physicians. Participation in the simulation activity will be voluntary and participants may withdraw at any time during the experience.
After the simulation exercise if complete, participants will debrief with faculty and complete the post-evaluation tool of competency assessment and the Satisfaction with Simulation Experience Scale (SSES).
Outcomes and measures:
Outcomes and measures: We will administer the Satisfaction with Simulation Experience Scale (SSES) to participants at the end of the program to determine perceptions of the effectiveness of the simulation. Levett-Jones, at et al developed the SSES to assess learner attitudes toward both low and high fidelity simulations. The instrument contains 18 items related to three domains: Debrief and reflection, Clinical Reasoning, and Clinical Learning. Participants indicate level of agreement with items using a 5-point Likert scale, as well as identifying age, gender, profession (i.e., nurse or physician), and area of specialty. The instrument has been validated in multiple studies. In addition to assessing the effectiveness of this interprofessional simulation program, we will ask each participant to self-identify their own level of competence across a set of 15 leader competencies. Following the simulated experience, we will administer the same set of competencies and ask for the participant to identify those competencies that could be advanced using the four-simulated scenarios. We have received gratis permission from the copyright holders to use this instrument and agreed to share our findings as this will be the first utilization of the SSES with practicing clinical staff.
Data management and analysis: Responses to the SSES will be securely captured, de-identified, and stored using the RedCap system administered by the Duke Office of Clinical Research (DOCR). Qualitative data from the competency assessment will also be de-identified and stored on a Duke server.
Sustainability: The expense for this simulation exercise is found with the training of the standardized patients and persons (SPPs) as well as the scenario scripting. During the pilot in July 2016, we utilized students and faculty that had the summer off from school and voluntarily returned to campus to participate. Payment of SPPs is also a consideration. We have the support of senior leadership to continue this project if deemed effective via the self-rated competencies and the SSES.
Opportunities for subsequent scholarship: Issues related to 1) Interprofessional collaboration/ team training, and 2) communication between nurses/physicians as related to patient safety and communication are relevant topics that would find many audiences across multiple specialty journals and national conferences. We plan to submit results of this project to national meetings such as the 2017 InterProfessional Health Care Summit (Savannah, GA), the annual AAMC meeting, and journals

such as the Journal of Interprofessional Care, Academic Medicine, Journal of Nursing Administration, Journal of Nursing Professional Development, and the Journal of Graduate Medical Education.
Broader Impacts: Improved attitudes towards nurse physician collaboration and patient-centered interaction and communication could have significant impacts on the health system with regard to patient outcomes and publicly reported measures as well as lead to changes in curriculum and teaching strategies in both the schools of Medicine and Nursing. The lessons learned from the pilot and this project could be expanded throughout the health system, SOM and SON in order to improve these objective indicators of patient-centered communication and clinician collaboration.

IRB Status: Plan to submit

Challenges: We will need to think carefully about individual learning styles of the participants. In the pilot session, all participants reported high satisfaction with the experience; however, the group consisted of clinical team leads and one manager. Careful consideration will be given to pre-simulation readings and resources to include full preparation for the experience and an understanding of what is involved.

Budget Template:

PI Effort		
Consult costs:	A project manager to help with advertising, recruiting, meetings, distribution and collection of materials,working with student nurses for set up and take down of simulated rooms, evaluation.	$1000 honorarium
	Standardized Patients/Persons Each of the 16 standardized patients/persons and each of the 4 faculty facilitators will receive an $25.00 per hour X 20 hours each (Four hours prep and sixteen hours of simulation).	$10,000

Equipment:		
Supplies:	Supplies Morning coffee and lunch for . ($10/person x 32 participants over two days+ SPPs and facilitators (20)= 72	$720
Travel:		
Total Requested:		$11,720
*Note, this project is scalable		

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