"DAY OF CARE" VIDEO SIMULATION:

Assessing Student Satisfaction, Proficiency, and Self-Confidence in Learning

Kathleen Huun PhD RN

RATIONALE

A directive from the NLN Vision (2012) priority for research in nursing education is to study "the use and cost-effectiveness of technologies (e.g., online, simulation, tele-health) to expand capacity in nursing education" (NLN Board, 2012, p. 3).

As a fully online undergraduate LPN-BSN nursing program with a direct tie to a campus and simulation center, the "tools" and manpower to create a video recorded simulation were readily available.

OBJECTIVES

Objective 1

Increase the students awareness of the significance of an initial head-to-toe assessment of a high-acuity patient and the means of accomplishing the task

Objective 2

Identify students ability to complete a head-to toe assessment and continued assessment of a high-acuity patient following the observation of a packaged video simulation

Objective 3

Assess student satisfaction and self-confidence in learning from a high-acuity "Day of Care" video-simulation

THE EVIDENCE

Video simulation

"**Video-recorded simulation** is a teaching technology that allows one to represent reality under controlled conditions, both of the environment and the individuals involved, which in turn favors learning"

(Cardoso et al., 2011, p. 709).

Role Model

Within the context of simulation, "observation of an expert **role model** . . . can impact student development of clinical judgment"

(Lasater, Johnson, Ravert, & Rink, 2014, p. 263).

Standardized Patient

Standardized patients in simulation "provide rich clinical experiences for undergraduate nursing students"

(Sideras et al., 2013, p. 425).

THE EVIDENCE

Think-aloud Technique

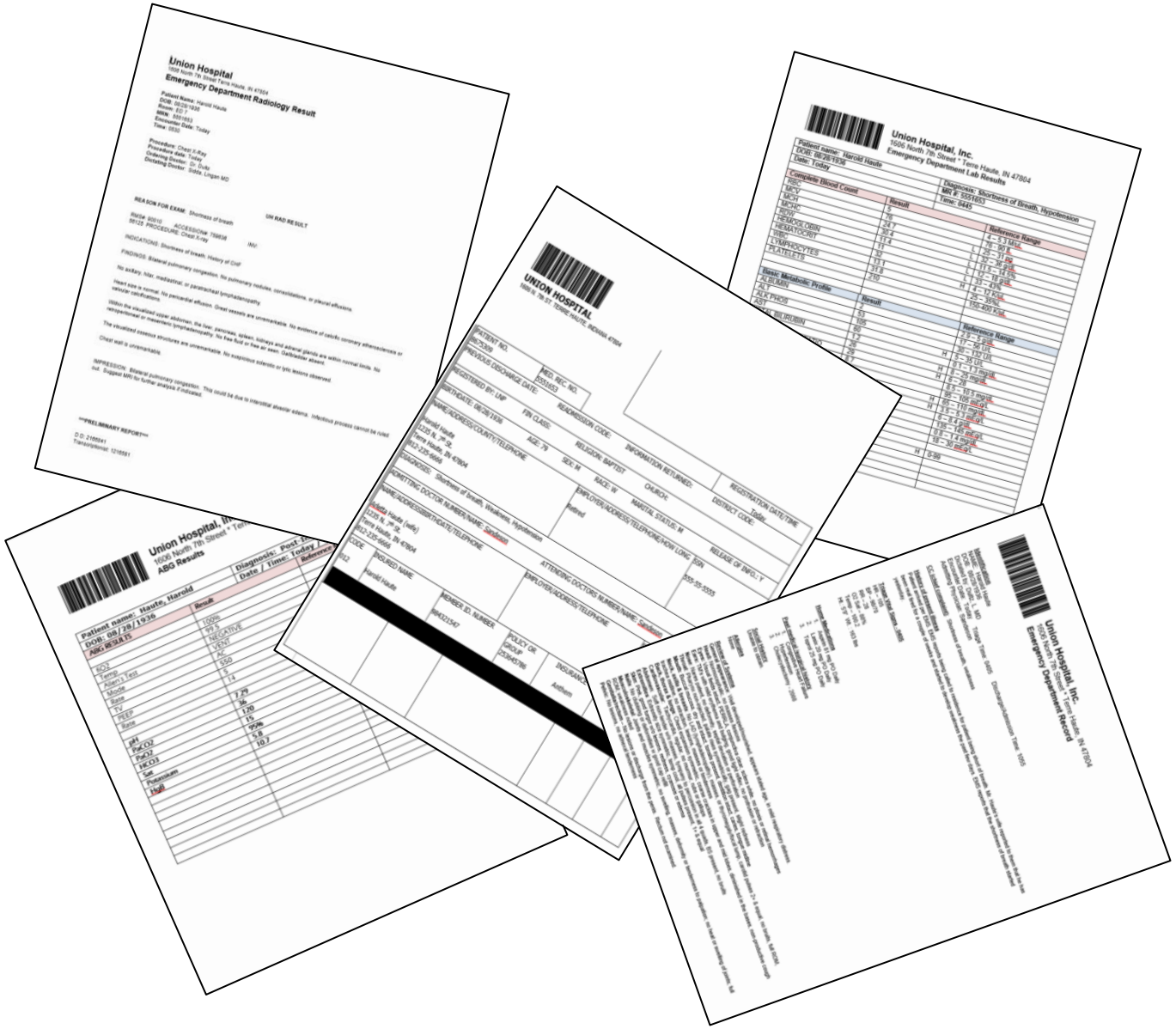
Using the "**think-aloud technique** in real clinical practice [simulation] may provide a more valid description of clinical reasoning because it captures the spontaneous thinking and communication that occurs during patient contact" (Johnsen, Slettebo, & Fossum, 2016, p. 99).

Observational Learning

Johnson et al., (2012) confer and note that the **observational learning** can be enhanced when aligned with **thinking aloud** by expert nurses. (p. 99).

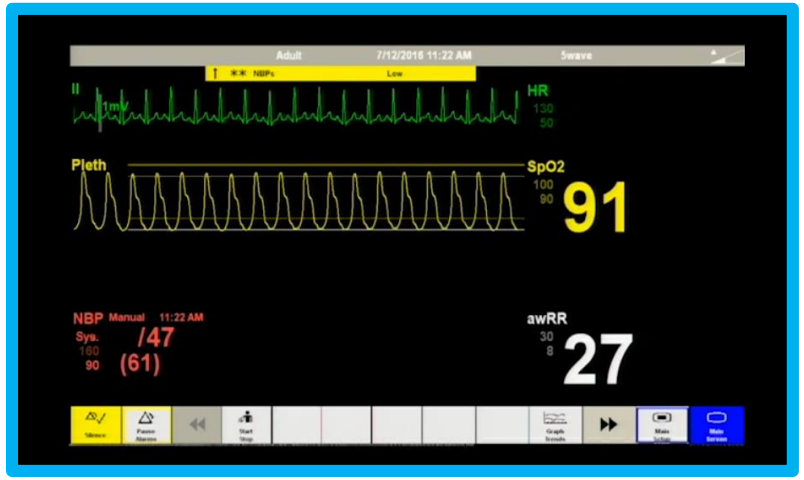
REALITY: NON-SCRIPTED

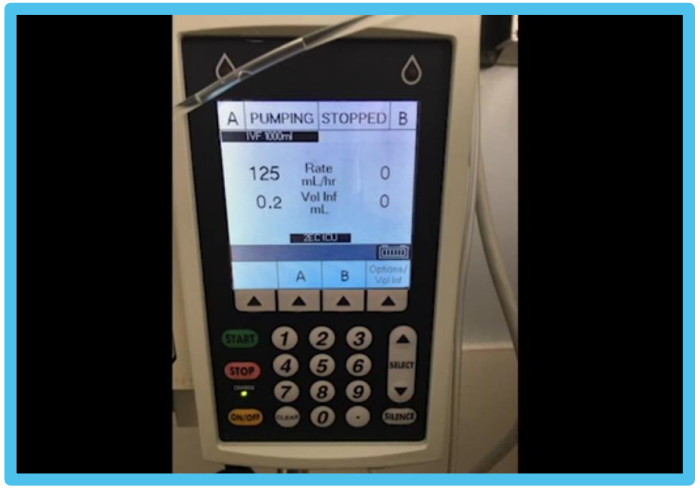
REALITY: THE CHART



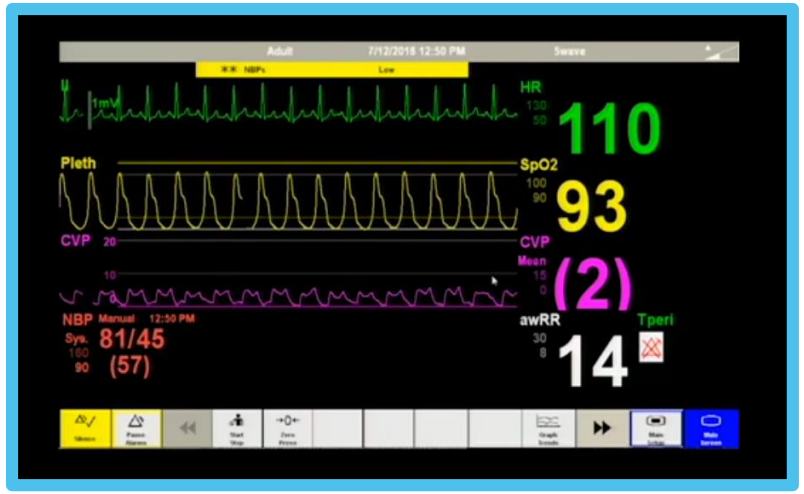
REALITY: UPDATES

1100
Harold Haute, 79yo. Pt of Dr. Sandeson is being admitted to the ICU from the ED with a diagnoses of hypotension and shortness of breath.





1300
Norepinephrine (16mg/250mL) gtt started at 2mcg/min & Midazolam (1mg/mL) gtt started at 2mg/hr through the central venous access.



Harold Haute's condition continued to deteriorate over the next 12 hours leading to acute renal and hepatic failure, ARDS, and a MI. He was placed on multiple vasopressors, continuous renal replacement therapy and prone therapy.

METHODS

ONLINE STUDENTS: LPN-BSN

- asynchronously viewed the movie simulation via the online learning platform (one week allowed)
- completed patient data profile
- debriefing was the subsequent week via online discussion board
- at the close of the discussion board, students were given access to the NLN survey (via Qualtrics links)

FTF STUDENTS: TRADITIONAL

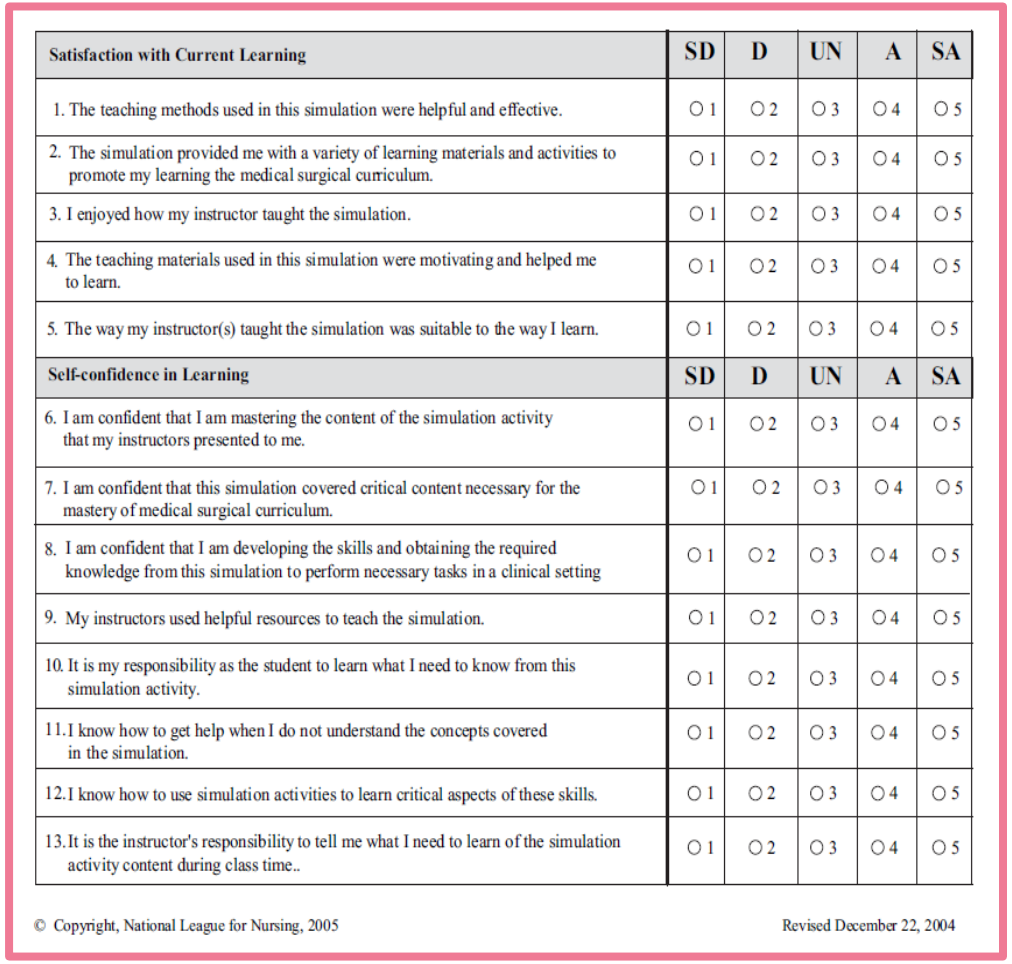
- asynchronously viewed the movie simulation via the online learning platform (one week allowed)
- completed patient data profile
- synchronous, face-to-face debriefing the week following the movie review
- the NLN survey (via Qualtrics link) was completed following the debriefing

METHODS: TOOLS

The National League for Nursing (NLN) *Student Satisfaction and Self-Confidence in Learning* survey was utilized for assessment.

This 13 item tool utilizes a five point scale. Reliability has been "tested using Cronbach's alpha: satisfaction = 0.94; self-confidence = 0.87" ("Description of Available Instruments," 2016).

Per the NLN (2017), this instrument is suitable for simulation that is newly established.



Satisfaction with Current Learning	SD	D	UN	A	SA
1. The teaching methods used in this simulation were helpful and effective.	○ 1	○ 2	○ 3	○ 4	○ 5
2. The simulation provided me with a variety of learning materials and activities to promote my learning the medical surgical curriculum.	○ 1	○ 2	○ 3	○ 4	○ 5
3. I enjoyed how my instructor taught the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5
4. The teaching materials used in this simulation were motivating and helped me to learn.	○ 1	○ 2	○ 3	○ 4	○ 5
5. The way my instructor(s) taught the simulation was suitable to the way I learn.	○ 1	○ 2	○ 3	○ 4	○ 5
Self-confidence in Learning	**SD**	**D**	**UN**	**A**	**SA**
6. I am confident that I am mastering the content of the simulation activity that my instructors presented to me.	○ 1	○ 2	○ 3	○ 4	○ 5
7. I am confident that this simulation covered critical content necessary for the mastery of medical surgical curriculum.	○ 1	○ 2	○ 3	○ 4	○ 5
8. I am confident that I am developing the skills and obtaining the required knowledge from this simulation to perform necessary tasks in a clinical setting	○ 1	○ 2	○ 3	○ 4	○ 5
9. My instructors used helpful resources to teach the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5
10. It is my responsibility as the student to learn what I need to know from this simulation activity.	○ 1	○ 2	○ 3	○ 4	○ 5
11. I know how to get help when I do not understand the concepts covered in the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5
12. I know how to use simulation activities to learn critical aspects of these skills.	○ 1	○ 2	○ 3	○ 4	○ 5
13. It is the instructor's responsibility to tell me what I need to learn of the simulation activity content during class time..	○ 1	○ 2	○ 3	○ 4	○ 5

© Copyright, National League for Nursing, 2005

Revised December 22, 2004

PARTICIPANTS

ONLINE STUDENTS: LPN-BSN

- N = 22
- 22 (100%) completed the patient data profile
- 17 (77.3%) allowed use of score in data collection
- 17 (77.3%)completed the NLN survey

FTF STUDENTS: TRADITIONAL

- N = 54
- 54 (100%) completed the patient data profile
- 54 (100%) allowed use of score in data collection
- 39 (72.2%)completed the NLN survey

RESULTS: STUDENT SATISFACTION

SATISFACTION	Q1	Q2	Q 3	Q4	Q5	TOTAL SATISFACTION
LPN-BSN	84.35%	94.12%	88.23%	88.23%	84.35%	439.28/ 5 = 87.9%
Traditional	46.14%	84.62%	41.01%	66.66%	46.14%	284.57/ 5 = 56.9%
ALL	57.14%	87.5%	55.36%	73.21%	57.14%	330.35/ 5 = 66.1%

1. The teaching methods used in this simulation were helpful and effective.
2. The simulation provided me with a variety of learning materials and activities to promote my learning the medical surgical curriculum.
3. I enjoyed how my instructor taught the simulation.
4. The teaching materials used in this simulation were motivating and helped me to learn.
5. The way my instructor(s) taught the simulation was suitable to the way I learn.

RESULTS: SELF-CONFIDENCE IN LEARNING

SELF		Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	TOTAL
LPN-BSN		76.47%	81.25%	82.35%	82.35%	94.12%	82.35%	76.47%	47.05%	622.41/8 = 77.8%
Traditional		58.97%	74.36%	69.23%	64.1%	79.48%	89.75%	79.48%	61.54%	576.91/8 = 72.11%
ALL		64.29%	76.36%	73.22%	69.65%	83.93%	87.5%	78.57%	57.14%	590.66/8 = 73.83%

6. I am confident that I am mastering the content of the simulation activity that my instructors presented to me.
7. I am confident that this simulation covered critical content necessary for the mastery of medical surgical curriculum.
8. I am confident that I am developing the skills and obtaining the required knowledge from this simulation to perform necessary tasks in a clinical setting
9. My instructors used helpful resources to teach the simulation.

10. It is my responsibility as the student to learn what I need to know from this simulation activity.
11. I know how to get help when I do not understand the concepts covered in the simulation.
12. I know how to use simulation activities to learn critical aspects of these skills.
13. It is the instructor's responsibility to tell me what I need to learn of the simulation activity content during class time..

RESULTS: PATIENT DATA PROFILE, ASSESSMENT

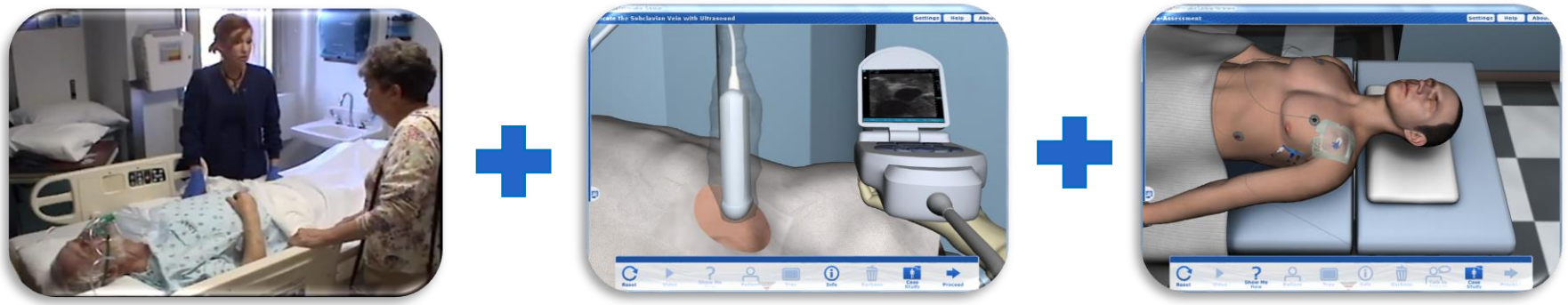
		Patient Profile (OVERALL)	Medical History	System Assessment	Labs Diagnostics
LPN - BSN		95.27%	98.53%	94.62%	96.25%
Traditional BSN		86.93%	89.1%	84.76%	89.2%

DISCUSSION

- Student responses show that a video format is a useful means to allow for online simulation and shows evidence of satisfaction (mode of simulation) and self-confidence in learning.
- For this pilot survey two tracks of nursing students learning via differing formats (online versus face-to-face) may have direct benefit from this educational modality.
- This finding is helpful as the logistics, faculty time, and cost of simulation for large groups of students is considerable.
- The development of specific (level appropriate) video case study simulations may broaden the teaching strategies available to bring simulation and debriefing to students of nursing (distance or face-to-face).

RECOMMENDATIONS FOR FUTURE RESEARCH

- Assessment of student satisfaction and self-confidence in learning that reflects on a **bundled simulation** (video simulation combined with e-simulation elements). The added, aligned e-simulation may have an impact as it allows for "hands-on" versus strictly observational learning.



- Assessing additional tracks of nursing, such as accelerated, could be beneficial.

References

Cardoso, A., Moreli, L., Braga, F., Vasques, C., Santos, C., & Carvalho, E. (2012). Effect of a video on developing skills in undergraduate nursing students for the management of totally implantable central venous access ports. *Nurse Education Today, 32*(6), 709- 713. doi:10.1016/j.nedt.2011.09.012

Description of Available Instruments. (2016). *National League for Nursing*. http://www.nln.org/professional-development-programs/research/tools-and-instruments/descriptions-of-available-instruments

Johnson, E., Lasater, K., Hodson-Carlton, K., Siktberg, L., Sideras, S., & Dillard, N. (2012). Geriatrics in simulation: Role modeling and clinical judgment effect. *Nursing Education Perspectives, 33*(3), 176-180.

Johnsen, H. M., Slettebo, A., & Fossum, M. (2016). Registered nurses' clinical reasoning in home healthcare clinical practice: A think-aloud study with protocol analysis. *Nurse Education Today, 40,* 95-100. http://dx.doi.org/10.1016/j.nedt.2016.02.023

Lasater, K., Johnson, E., Ravert, P., & Rink, D. (2014). Role modeling clinical judgment for an unfolding older adult simulation. *Journal of Nursing Education, 53*(5), 257-264. doi: 10.3928/01484834-20140414-01

NLN Board of Governors. (2012, November). *NLN vision: Transforming research in nursing education*. National League for Nursing. Retrieved from http://www.nln.org/docs/default- source/ about/nln-vision-series-%28position-statements%29/ nlnvision _5.pdf ?sfvrsn=4

Sideras, S., McKenzie, G., Noone, J., Markle, D., Frazier, M., & Sullivan, M. (2013). Making simulation come alive: Standardized patients in undergraduate nursing education. *Nursing Education Perspectives, 34*(6), 421-425.