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ASSESSING CLINICAL JUDGMENT BEHAVIORS AND SELF-REFLECTION USING THE LASATER CLINICAL JUDGMENT RUBRIC IN BSN STUDENTS

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LEARNING OBJECTIVES

- Identify at least three elements of clinical judgment.
- Review at least four strategies to promote clinical judgment using simulation with human manikins (HSM) with BSN students.
- Discuss impact of research project on student self-reflection and self-awareness re clinical judgement.

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THE CHALLENGE

- Educate nurses as critically thinking participants in interdisciplinary teams.

- Demonstrate accountability via valid and reliable assessment tools for quality education.

(Aiken, Clarke, Sloane & Silber, 2002)

BACKGROUND: CLINICAL REASONING

- Nursing students need opportunities to act as detectives to help develop clinical reasoning and judgment:
  - -set priorities
  - -learn how to act in given situations
  - -respond to changes in patient condition
  - -attend to evidence-based rationales to guide practice

(Benner, Tanner & Chesla, 2010) (Lasater & Neilson, 2009) (Lasater, 2007, 2011)

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BACKGROUND: CLINICAL REASONING

- Students need to learn specific types of thinking relevant to novice practice, such as problem solving, decision making and diagnostic reasoning in health care situations.
- Synthesize the nursing process to assess, determine, and manage patient problems.

(Walsh & Seldomridge, 2006) (Lambie, Schwend & Scholl, 2015)(Oerrmann & Gaberson, 2009) (Tanner, 2005,2009)

BACKGROUND: PROJECT

- BSN program-traditional students
- Senior laboratory class
- Team taught course
- First HSM course
- Cohort size: 59 students

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WHY HUMAN SIMULATION MANIKINS?

- Permits exposure to complicated yet safe patient care situations that permit development and practice of reasoning skills.
- Offers opportunities to practice critical events in a safe and controlled environment.
- Fosters problem based learning.
- Consistent clinical experience for study

(Chen et al, 2017) (Chee, 2014) (Lin et al., 2010) (Kong, Qin, Zhou, Mou & Gao, 2014)

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SELF-AWARENESS

- Self-awareness is defined as the agreement between an individual's self-perceptions and external perceptions about that individual.
- Individuals with accurate self-perceptions generally have better outcomes and leadership performance.
- Increases forward movement in thinking.

(Nelson, Fierke, Sucher & Janke, 2015) (Maxwell et al, 2016) (Scott & Spouse, 2013)

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GOALS

- Provide a clear layered scaffold for development of clinical judgment behaviors.
- Provide clear, consistent, formative feedback to students involved in clinical simulation learning with four different faculty.

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LASATER CLINICAL JUDGMENT TOOL

- Based on Tanner's Model of Clinical Judgment
  1. Noticing: observe and develop expectation
  2. Interpreting: perceive and understand
  3. Responding: develop appropriate intervention
  4. Reflecting: evaluation and debriefing

(Tanner, 2005, 2006) (Lasater, 2007A, 2007b, 2011) (Lasater & Neilson, 2009)

LASATER CLINICAL JUDGMENT TOOL

- Describes behavioral dimensions under the categories of Assessment, Diagnosing, Interventions and Evaluation.
- Each behavioral dimension provides clear examples of salient behaviors under descriptor categories: novice, developing, accomplished and exemplary to guide students in their clinical activities. (Tanner, 2005, 2006) (Lasater, 2007A, 2007b, 2011) (Lasater & Neilson, 2009)

NURSING PROCESS ELEMENTS

- Assessment
- Diagnosis
- Planning/Outcomes
- Implementation
- Evaluation

HYPOTHESES:

- 1. Weekly reflection using the LCJR, students' awareness of and incorporation of critical thinking behaviors would improve their movement across a continuum toward exemplary behaviors & habits.
- 2. Weekly reflection would increase self-awareness of critical thinking behaviors and lead to accurate student self-evaluation of simulation lab participation.

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METHODS: SAMPLE

- Randomly assigned to 5-person care team
- Traditional BSN students in their senior year.
- 86 % Caucasian, and 10 % Hispanic, 2% African American.
- 82% female, 18% male

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METHODS: PROCEDURES

- Quasi-experimental design, repeat-measures test of student scores at 2 points (mid, end semester)
- Quasi-experimental design, measures test of faculty and student score average at conclusion of semester
- Inter-rater reliability scores-2 points
- Focus group-qualitative measures

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LOGISTICS

- Four faculty with four unique areas of clinical expertise
- 60 senior BSN students in synthesis course
- Lab time and space for 3 cohorts of 20 students
- IRB approval

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LAB TIME

- Students randomly assigned to 4 or 5 member teams, based on their lab time schedule.
- 2 hour lab divided into 3 rotating activity periods (prep content quiz, learning activity, Simulation).
- Simulation each week: rotated role of primary, secondary nurse, ancillary team member, family member(s).

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- LCJR tool was introduced on the first day of the 14 week simulation lab. Reviewed tool and discussed tool purposes: for performance reflection and self-evaluation.
- Numbered rubrics were given to students at the beginning of each lab session, and collected at the conclusion.

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METHOD

- Simulations were videotaped and faculty developed a skill/behavior list for each simulation.
- Faculty relied on their observational notes, the behavior list notes, and videos for grading using the LCJR.
- Scores from the five primary or secondary nurse role scenarios over the semester were then averaged for a final simulation grade.
- Grades for weekly quizzes and other learning activities were compiled with the simulation grade for an overall grade for the semester.

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- All simulations were filmed. These films were used to evaluate inter-rater reliability of faculty scoring.
- The four faculty evaluated films at two different points in the semester; with Cohen's Kappa values of 0.70, 0.70, 0.80 and 0.40 respectively.

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- Hypothesis 1: Weekly reflection using the LCJR, students' awareness of and incorporation of critical thinking behaviors would *improve their movement* across a continuum from novice toward exemplary behaviors & habits.

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- The quasi-experimental design compared students' self-scores of behavioral indicators from two different points during the 14 week semester.
- A means score was achieved by averaging each 5 member team's individual scores for each dimension.

ANALYSIS

- Statistical analysis entailed use of simple counts, means (M), standard deviations (SD), and two-tailed t-test analysis. A paired T-test was used to compare congregate team scores from week 4-6 with congregate team scores from week 10-12.

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	Assessment			Diagnose		Interventions				Evaluation	
	Obser vation	Change from Expected Patterns	Infor- mation Seeking	Prioritize Data	Analyze Data	Manner	Commu- nication	Flexible	Skillful- ness	Self- Analysis	Improve- ment
A-1	2.53	2.33	2.73	2.40	2.40	2.73	2.80	2.67	2.73	2.73	2.53
A-2	3.20	3.27	3.53	3.33	3.20	3.33	3.53	3.33	3.13	3.07	3.47
Paired T-Test	0.0006	0.0002	0.0006	0.0005	0.0002	0.0035	0.0006	0.0034	0.0042	0.0275	0.0005
B-1	3.33	3.07	3.13	3.20	2.67	3.13	3.27	3.00	3.07	3.13	3.07
B-2	3.40	3.33	3.47	3.47	3.27	3.40	3.53	3.40	3.07	3.47	3.67
Paired T-test	0.3592	0.1671	0.0680	0.1310	0.0167	0.1084	0.1503	0.0554	0.5	0.0480	0.0167
C-1	3.21	3.14	3.21	3.14	3.00	3.00	2.86	3.21	2.86	3.07	3.21
C-2	3.57	3.50	3.57	3.50	3.43	3.50	3.57	3.57	3.43	3.43	3.57
Paired T-test	0.1330	0.1192	0.1039	0.0869	0.1168	0.0446	0.0032	0.0480	0.0130	0.0682	0.0869
D-1	2.80	2.73	3.00	2.80	2.40	2.93	2.87	2.73	2.67	2.60	3.00
D-2	3.40	3.47	3.33	3.40	3.13	3.53	3.67	3.27	3.33	3.27	3.53
Paired T-test	0.0028	0.0006	0.0680	0.0167	0.0031	0.0167	0.0006	0.0073	0.0015	0.0061	0.0133

ANALYSIS

- Hypothesis 1: Weekly reflection using the LCJR, students' awareness of and incorporation of critical thinking behaviors would *impact their movement* across a continuum toward exemplary behaviors & habits.
- Null hypothesis was NOT proven as 36 of 44 P-values were <0.05.

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- Hypothesis 2: Weekly reflection would increase self-awareness of critical thinking behaviors and *lead to accurate student self-evaluation* of simulation lab participation.

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ANALYSIS

- Statistical analysis entailed use of simple counts, means (M), standard deviations (SD), and two-tailed t-test analysis. The between-group (student and faculty) comparisons of scoring of simulation lab participation were evaluated with an unpaired T-test. A 95% confidence interval was utilized using Excel.

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S-Student	Team 1		Team 2		Team 3		Team 4		Team 5		Team 6	
F-Faculty	S	F	S	F	S	F	S	F	S	F	S	F
Noticing/Assessment												
Focused observation	3	3.6	3	3.6	3.8	3.7	3	3.2	3.2	3.7	3.6	3.2
Recognize deviations	3.2	3.4	2.8	3.5	3.6	3.5	3.4	3.4	3.2	3.1	3.4	3
Information Seeking	3.2	3.7	3.6	3.6	3.6	3.8	3.4	3.6	3.4	3.6	3.6	2.9
Interpreting/Diagnosing												
Prioritize data	3	3.3	3	3.4	3.6	3.5	3	3.1	3.2	2.9	3.4	2.9
Analyze data	3.2	3.1	3.2	3.1	3.4	3.4	3	3.2	3.4	3	2.8	2.4
Interventions/Responding												
Manner	3.2	3.8	3.2	3.7	3.6	3.5	3	3.6	3.6	3.8	3.6	3.8
Communication	3.2	3.8	3	3.8	3.6	3.6	3.2	3.4	3.8	3.7	3.2	3.6
Flexible Interventions	3	3.4	3	3.2	3.4	3.5	2.6	2.8	3.6	3	3.4	3
Skillfulness	2.8	3.4	3	3.2	3.2	3.2	3	3.2	3.4	3.3	3.2	3.7
Evaluation/Reflecting												
Self-Analysis	3.2	3.6	3	3.6	3.2	3.2	3.4	3.4	3	3.7	2.8	3.4
Commit to improve	3.4	3.8	3.2	3.7	3.4	3.5	3.2	3.3	3.8	3.7	2.8	3.8
	0.00016		0.00041		1.00000		0.08647		0.04568		0.05727	

F-Faculty	S	F	S	F	S	F	S	F	S	F	S	F
Noticing/Assessment												
Focused observation	3	3.5	3	3.2	2.8	2.9	3.2	3.6	3	3.8	3	3.4
Recognize deviations	3	2.7	3	2.8	3.2	3	3.6	3.2	3	3.1	3.3	3.2
Information Seeking	3	3.5	3.2	3.8	3	2.6	3.4	3.2	3	3.1	3	2.5
Interpreting/Diagnosing												
Prioritize data	3	3	3.6	3	3.2	2.7	3.6	3.1	2.8	3	2.8	2.9
Analyze data	3	2.8	4	3.1	2.8	2.7	3.4	3.2	2.8	2.9	2.6	2.4
Interventions/Responding												
Manner	3	3.7	3.6	3.8	3.2	3.7	3	3.7	3.4	3.6	3.5	2.9
Communication	3	3.6	3.6	3.9	3.5	3.9	3.4	3.7	3.2	3.2	3.3	3.2
Flexible Interventions	3	2.8	2.4	2.8	2.8	2.6	3	2.6	3	3.1	3.2	2.9
Skillfulness	3	3.4	3	3.1	2.8	3.3	3.2	3.1	2.8	2.7	3	2.9
Evaluation/Reflecting												
Self-Analysis	3	3.3	3	3.4	3.4	3.7	3.2	3.6	2.8	3.5	3.2	3.9
Commit to improve	3	3.8	3.2	3.9	3.4	3.9	3	3.9	3	3.7	3.4	3.9
P-value	0.22344		0.56344		0.65655		0.54524		0.04499		0.91537	

ANALYSIS

- In two-tailed t-test analysis of LCJR scores, student's self-evaluation scores (M=2.675, SD=0.2491) compared with faculty evaluation scores (M=3.12, SD=0.3175). A P-value of 0.465 demonstrated no significant difference between the means using a 95% confidence interval.

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DISCUSSION

- Students reported discomfort with weekly self-evaluation.
- This was a really clear tool for evaluation, but also an exceptional resource for guiding debriefing for a *novice* faculty member.
- The LCJR tool helped raise students' awareness of and incorporation of critical thinking behaviors & improved their movement across a continuum of novice towards exemplary behaviors.

(Sabei, Lasater, 2016)

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DISCUSSION

- Across all twelve sections, students consistently graded themselves lower than faculty at the interventional dimension.
- Benner, Tanner & Chesla (2009) describe this tendency of novice nurses to focus on mastering skills versus developing a “big picture” perspective.

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