

The Impact of Supplemented Simulation on Competence

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An emerging trend is to **substitute** traditional clinical hours with simulation as a means to optimize student competency and clinical decision-making skills (CDM). There is limited literature regarding the impact of using simulation to **supplement** traditional clinical hours versus **substitution** on learner outcomes and patient care.

Review of Literature

- Up to 50% of traditional clinical hours can be substituted with simulation rendering no statistically significant difference in clinical competence (Hayden et al., 2014).
- Little is known about the impact of supplementing traditional clinical learning experiences with simulation versus substituting simulation and its impact:
 - Learner outcomes
 - Competency
 - CDM
 - Patient care

Purpose

- Explore the differences in clinical competence between two different cohorts of senior baccalaureate nursing students in their final semester of a traditional pre-licensure program in the United States

Design/Procedure

- Quasi-experimental design
- Both Cohorts were evaluated in a simulation at the completion of their BSN program
 - Cohort 1 (n=35) **substituted** their traditional hospital-based adult health clinical experiences with simulation
 - Cohort 2 (n=36) **supplemented** their traditional adult health clinical experiences with simulation

Instruments

- ❑ Modified version of the *Creighton Competency Evaluation Instrument* (Hayden et al., 2014).

Demographics

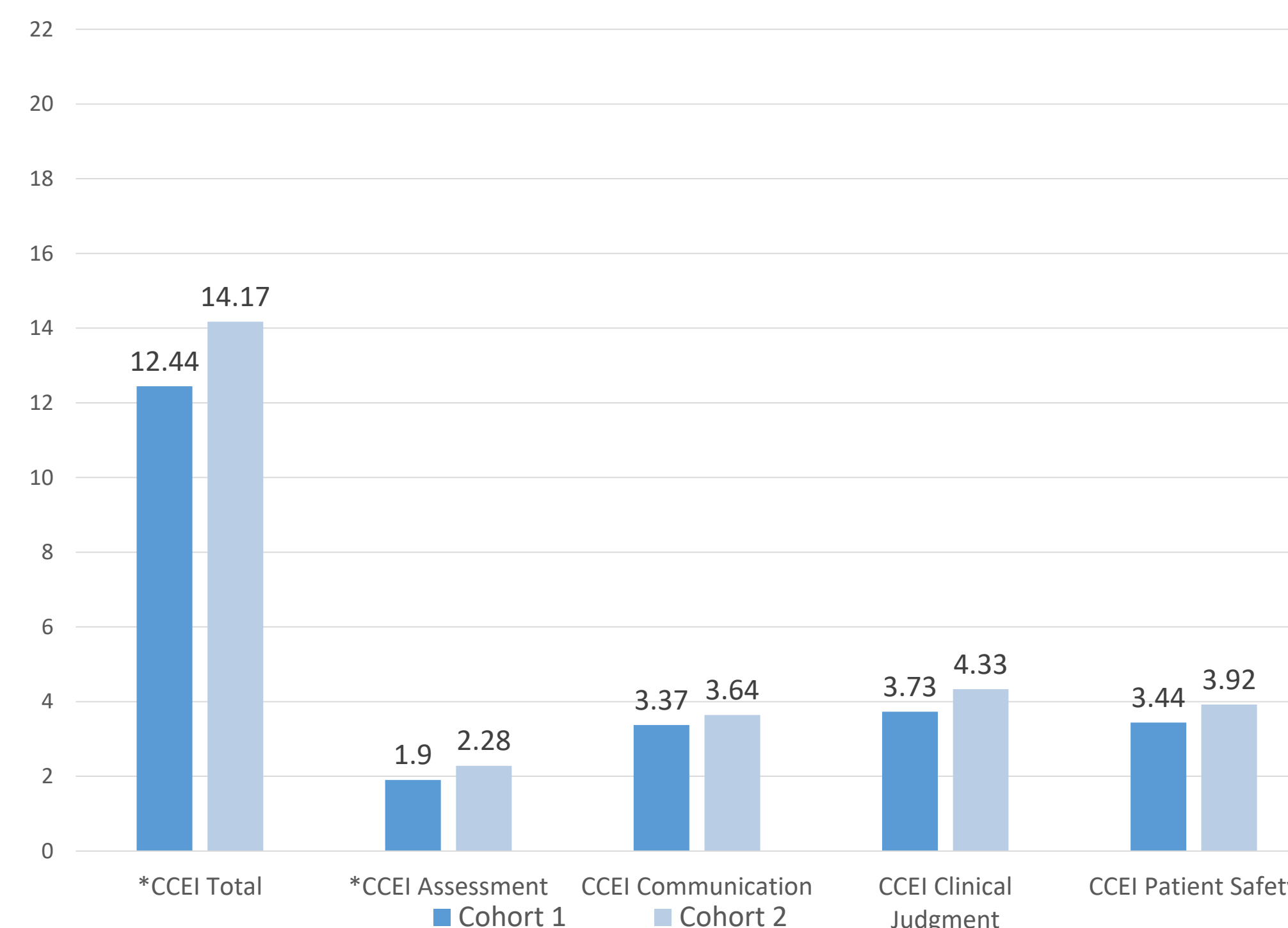
	Cohort 1 (N=35)	Cohort 2 (N=36)
Gender		
Male	3 (8.6)	1 (2.9)
Female	32 (91.4)	34 (97.1)
Age	Range= 21-27, Mean=22	Range= 21-24, Mean= 22
Ethnicity		
Caucasian	29 (82.9)	32 (88.9))
African American	3 (8.6)	3 (8.3)
Asian	1 (2.8)	1 (2.8)
Hispanic	2 (5.7)	0 (0)
Nursing Assistant		
Yes	5 (14.3)	23 (63.9)
No	30 (85.7)	13 (36.1)
Nurse Intern		
Yes	7 (20.0)	19 (52.8)
No	28 (80.0)	17 (47.2)

Creighton Competency Evaluation Instrument

- Students in Cohort 2 had significantly higher CCEI Total and Assessment Subscale Scores
 - Gathered assessment data prior to contacting the provider
 - Utilized SBAR
 - Implemented interventions
 - Safer medication administration
- Students performed better patient assessments when simulation was used as a supplement to traditional clinical experiences

Implications

- A supplemented model may result in nurses that are better prepared
- A supplemented model may allow for curricular flexibility
- More research is needed to determine the best model for simulation integration



References

Hayden, J.K., Smiley, R.A., Alexander, M., Kardong-Edgren, S. & Jeffries, P.R. (2014). The NCSBN national simulation study: A longitudinal, randomized, controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Regulation*, 5(2), C1-S64.