

Assessing Virtual Simulation Success Using ATI Proctored Exams



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Background

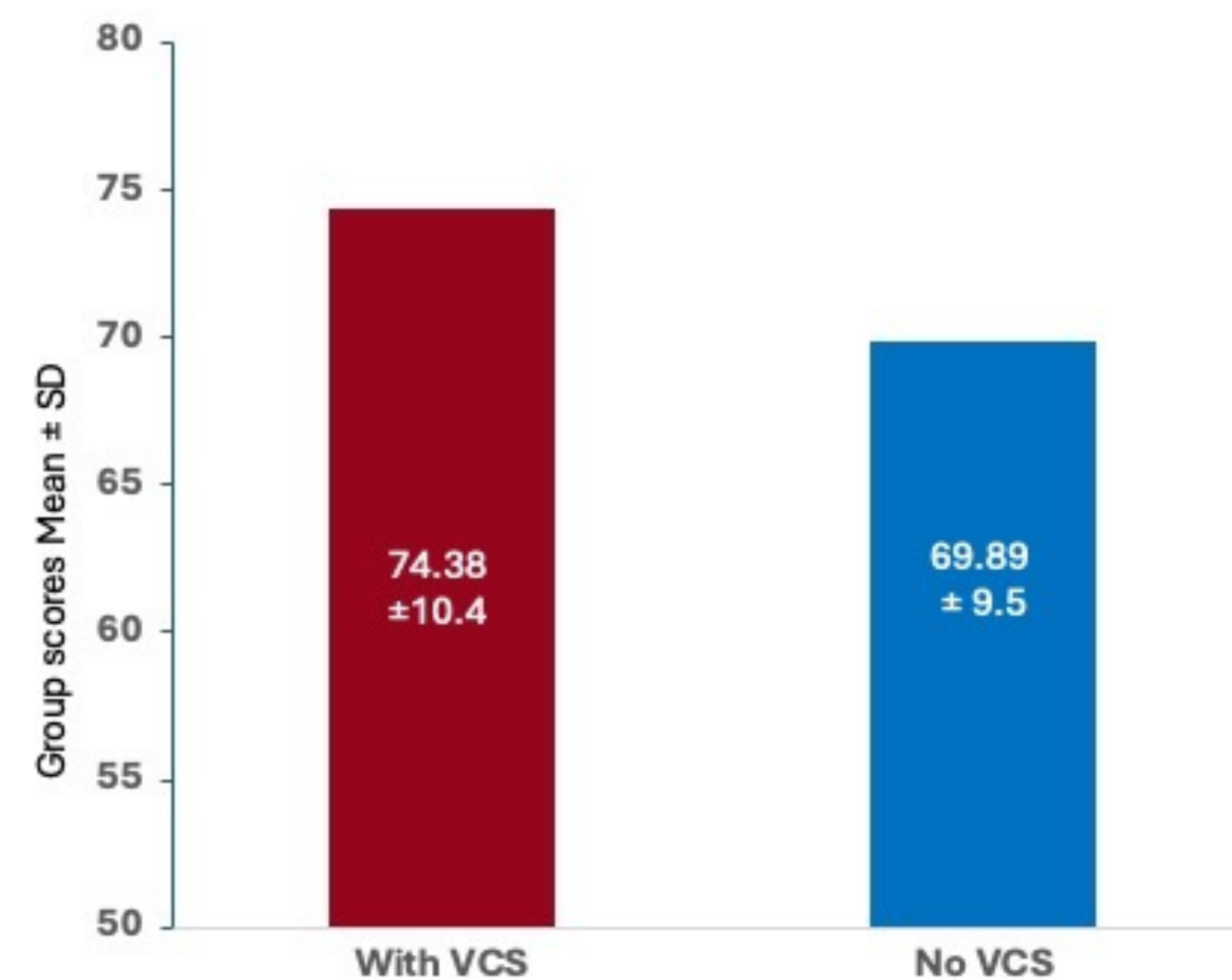
- High fidelity virtual simulation is an efficacious, educationally sound student nurse clinical experience.¹
- Virtual simulation offers the advantage of expert guidance in a controlled environment including the uniform delivery of content for the practice of clinical decision-making.²
- Simulated and real-life field learning should be proportionate to assure adequate exposure to essential high-risk, low-volume clinical experiences³
- MCCN faculty have been applying standards for Virtual Clinical Simulation (VCS) to improve student participation and learning outcomes. Course faculty participated in all phases of simulation development and delivery to provide a consistent experience between groups for students.

Methods

- Written step-by-step guides created by the primary instructor were used to direct engagement in Swift River virtual simulations including preparation questions, guidance during the simulation, debriefing, and gaming reviews.
- A descriptive study assessed student outcomes on the ATI proctored exam in response to the use of VCS enhanced by guided pre-simulation briefing, interactive guidance during the simulation, and post-simulation debriefing.
- Second degree students in a pediatrics course were chosen for this experience. The students without the VCS experience were the control group (n=46) and students who experienced VCS (n=43) were part of the course in the subsequent summer term.

Results

This chart presents Group Mean Score for the group who experienced VCS (n=43) compared to those who did not (n=46).



This table presents the Group Mean for Major Content Areas on the ATI. Those students who participated in VCS achieved higher scores in Major Content Areas. These areas are presented in rank order from largest to smallest difference

	With VCS	No VCS	Difference	Rank order
Management of Care	77.3	69.6	7.7	1
Safety and Infection Control	72.8	67.1	5.7	2
Reduction of Risk Potential	75.6	71.2	4.4	3
Pharmacological and Parenteral Therapies	77.1	73.2	3.9	4
Basic Care and Comfort	79.5	76.4	3.1	5
Physiologic Adaptation	73.1	70.5	2.6	6
Psychosocial Integrity	62.8	60.9	1.9	7
Health Promotion and Maintenance	62.8	62.2	0.6	8

Conclusions

- The step-by-step guides were consistent with best practice guidelines for virtual simulation and were beneficial for the faculty facilitation and student participation in the simulations.
- Students who experienced VCS scenarios performed at a higher level in all major categories of the ATI. Ranking the difference scores demonstrates a benefit to students understanding of management of care.
- Selection of VCS experiences should be selected with the goal of targeting areas of clinical practice and reasoning.
- The ATI proctored exams provide an outcome measure when testing various teaching strategies.

References

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