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Western States Simulation Alliance BRIDGES Conference

Little Patients, Big Conversations

The Role of High-Fidelity Simulation in Teaching Patient
Centered Communication in Pediatrics

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Introductions

Jean Dougherty RN, MSN-ed, CPN, CHSE, CCRN (she/they)

- Nursing Professional Development Specialist overseeing student innovation & experience and Pediatric Pathway Program Lead at Children's Hospital Los Angeles
- WSSA faculty

Kim Lindstadt RN, MSN, CCRN (she/her)

- Administrator, Las Madrinas Simulation Center at Children's Hospital Los Angeles

Learning Objectives

- Describe how effective communication in pediatric care can mitigate emotional stress and enhance outcomes for patients, families, and clinicians.
- Examine how high-fidelity simulation can enhance clinicians' communication skills in pediatric settings to strengthen trust, rapport, and partnership with patients and families.
- Demonstrate strategies for incorporating family dynamics, developmental considerations, and developmentally appropriate communication techniques into simulated pediatric encounters.

Children's Hospital LOS ANGELES



Our Mission:

We create hope and build healthier futures.

As a leader in pediatric academic medicine, we fulfill our mission by:

- Caring for children, teens, young adults and families
- Making discoveries and advances that enhance health and save lives
- Training those who will be the future of child health
- Supporting our communities, especially underserved populations



CHLA Las Madrinas Simulation Center



- 5,000sqft | 4- Simulation Rooms | 3 - Debrief Rooms | 1 – Procedure Room
 - Critical Care | Double Patient Room | Single Patient Room | Operating Room
- American Heart Association Training Center BLS | PALS | NRP | ACLS
- Project ADAM Affiliate
- Society of Simulation in Healthcare Accredited
 - Core Standards | Teaching/Education | Research | Fellowship



Simulation Center

Differences between 1-player & 2-player Virtual Reality (VR) Training for Neonatal Resuscitation Program (NRP) Skills: a quasi-randomized comparison trial

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BACKGROUND

- High-fidelity neonatal resuscitation program (NRP) simulations require substantial costs for time, equipment, and instructor costs.
- Virtual reality (VR) simulations improve cognitive and psychomotor skills, but were initially developed as 1-player simulations.
- 2-player mode enabling human communication added to improve teamwork and reduce deviations from algorithms and protocols.
- It is unknown if 2-player NRP VR training has advantages over 1-player versions.

OBJECTIVE

To determine whether a 2-player NRP VR simulation is superior to a 1-player simulation in improving knowledge and performance.

VR SIMULATION

- We used the Neonatal Resuscitation Program (NRP) VR simulation, a 3D virtual reality simulation of a neonatal resuscitation scenario.
- The NRP VR simulation was modified after NRP version 7.
- A 30-day follow-up was presented with completion of the NRP VR simulation.

METHODS

- We observed physicians, obstetricians and pediatric residents, nurses, and respiratory therapists to enter 1- or 2-player groups based on scheduling.
- Interventional/Control: Participants performed the VR simulation 3 consecutive trials with feedback and opportunity to address technical issues.
- Outcome Assessment: Participants returned 7 to 14 days later for an assessment VR and 2-player mode data later for an assessment VR and 2-player mode data later for an assessment VR.

RESULTS (PRIMARY OUTCOMES)

Outcome	1-player (n=10)	2-player (n=10)
Primary Outcomes (mean [SD])	4.4 (1.8), (1.28)	4.8 (1.8), (1.28)
Secondary Outcomes (mean [SD])	3.0 (0.5), (4.1)	6.0 (2.25), (4.0)
Number of Errors	0 (0, 0)	0 (0, 0)
Team Actions	2.78 (2.12, 3.38)	4.0 (4.0, 4.0)

RESULTS (SECONDARY OUTCOMES)

Outcome	1-player (n=10)	2-player (n=10)
Primary Outcomes (mean [SD])	4.4 (1.8), (1.28)	4.8 (1.8), (1.28)
Secondary Outcomes (mean [SD])	3.0 (0.5), (4.1)	6.0 (2.25), (4.0)
Number of Errors	0 (0, 0)	0 (0, 0)
Team Actions	2.78 (2.12, 3.38)	4.0 (4.0, 4.0)

CONCLUSIONS

- No performance differences were found between training in 1-player vs. 2-player modes in an NRP VR simulation.
- Communication richness was better with 2-player mode vs. 1-player mode.

ACKNOWLEDGMENTS

We thank the following individuals for their assistance: [List of names]







Innovation at CHLA

Pediatric Pathway Program

- Two-year program for undergraduate nursing students to enhance student's skills related to the pediatric population and build practice ready pediatric nurses.
- New and innovative way to bridge the nursing academic practice gap through, didactic, clinical, and simulated experiences at CHLA



Effective Communication in Pediatrics

Unique aspects of communicating with children vs. adults

Trust-building and emotional safety for both patient and family

Heightened emotional environment



Psychological Fidelity

- The degree of perceived realism, including psychological factors such as emotions, beliefs, and self-awareness of participants in simulation scenarios

Building Authentic Pediatric Cases

Pediatric experts in scenario development

Skilled facilitators and debriefers

Standardized participants, if possible, in the role of the parent



Facilitation

- Reflective Pause: a deliberate pause during any portion of the learning experience used to facilitate immediate reflection.
 - The reflective pause facilitates the reflection-in-action process that is a natural part of learning.

(Lioce et al., 2025, p. 51)

Examples of Communication Based Pediatric Cases

- Pre-licensure Nursing:
 - Infant patient with dehydration
 - Family dynamics and low health literacy case
 - Parental guilt over patient condition
 - Parental concern around social worker involvement



Examples of Communication Based Pediatric Cases

- Reflection in Action Questions for Facilitator: (initiated if interaction between RN and parent becomes tense and/or when parent expresses guilt over patient condition)
 - How is your interaction with the parent going?
 - What do you think is going on with this parent?
 - How do you think we should respond to the guilt over the patient condition?

Examples of Communication Based Pediatric Cases

- Reflection in Action Questions for Facilitator: (initiated if interaction between RN and parent becomes tense and/or when the parent is defensive to speak to social worker, and again when parent asks “do you promise...”)
 - How is your interaction with the parent going?
 - What was your thought process in approaching the defensiveness towards social work?
 - How did you approach the “do you promise...” question?

Examples of Communication Based Pediatric Cases

- Pre-licensure Nursing:
 - Pain management of a 6-year-old post op patient case
 - Developmentally appropriate language and approach to the child
 - Switching between communication with parent and with child



Examples of Communication Based Pediatric Cases

- Reflection in Action Questions for Facilitator: (initiated if child becomes resistant to assessment and/or when parent asks why the child need to be assessed)
 - How is your interaction with the patient and/or parent going?
 - How can we change the approach to this child, given his developmental level?
 - How can we explain to this parent the need for assessment right now?
 - Who will give us consent to treat this patient?

Examples of Communication Based Pediatric Cases

- General onboarding/annual skills
 - BERT Scenarios (Behavioral Emergency Response Team) | De-escalation
- Critical Care Fellows
 - Breaking Bad News
- Systems Assessment
 - High Flight Risk vs Code Pink/Purple | High Anxiety vs Aggressive Behavior
- Advanced Practice Provider:
 - Microaggression Religion | LGBTQIA+

Impact on Pediatric Clinicians

- Enhance emotional intelligence and communication skills
- Safe space to make behavior assessment and communication mistakes
- “Valuable insights into pediatric care and the nuances of working with children and their families.”
- “Transformative ...opening doors to experiences that could never be found in any textbook.”

Questions?

**Learn more about the
CHLA Las Madrinas
Simulation Center!**



References

- Lioce L. (Ed.), Lopreiato J. (Founding Ed.), Anderson M., Deutsch, E.S., Downing D., Robertson J.M., Diaz D.A., and Spain A.E. (Assoc. Eds.), and the Terminology and Concepts Working Group (2024), *Healthcare Simulation Dictionary–Third Edition*. Rockville, MD: Agency for Healthcare Research and Quality; January 2025. AHRQ Publication No. 24-0077. DOI: <https://www.ahrq.gov/patientsafety/resources/simulation/terms.html>



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Conference survey for BRN CEs will be e-mailed to participants.

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