Emergency Medical Services Provider Acceptance of and Attitudes About Pediatric SimBox Simulations

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ALL-GRANTEE MEETING Adapting AND FORGING NEW Paths

BACKGROUND

SimBox simulations allow for high-frequency open-access healthcare education, overcoming cost and resource barriers. Prehospital paramedics and Emergency Medical Technicians (EMTs) care for children infrequently.

In this study, prehospital providers evaluated pediatric SimBox simulations.

METHODS

Participants were teams of two, comprised of a paramedic/paramedic, paramedic/EMT or two EMTs. The simulations used facilitator resources, debriefing prompts, video depictions of patients and vital signs, and a low-fidelity manikin. Pediatric emergency care coordinators, EMS training officers and/or emergency physicians facilitated simulations of seizure, sepsis with respiratory failure, and child abuse, followed by debriefings.

Data were analyzed by case type, participant type, location, participant reaction to simulation elements, and the debriefing. Net promoter scores (NPS) were calculated to assess participant endorsement of SimBox.

RESULTS

DOMAIN	Strongly Agree n (%)	Somewhat Agree n (%)	Do Not Agree n (%)
PREBRIEFING:			
Increased my confidence	89 (73.6)	32 (26.4)	0
Was beneficial to my learning	93 (76.9)	26 (21.4)	2 (1.7)
SCENARIO:			
I am better prepared to respond to changes in a patient's condition.	93 (76.9)	25 (20.7)	3 (2.4)
I developed a better understanding of the pathophysiology	79 (65.3)	36 (29.8)	6 (4.9)
I felt empowered to make clinical decisions.	95 (78.5)	25 (20.7)	1 (<1)
DEBRIEFING:			
Debriefing contributed to my learning	105 (86)	15 (12.4)	2 (1.6)
Debriefing allowed me to verbalize my feelings before focusing on the scenario	96 (79.3)	22 (18.3)	3 (2.4)
Debriefing allowed me to verbalize my feelings before focusing on the scenario	100 (82.6)	19 (15.7)	2 (1.7)
SESSION AS A WHOLE:			
Improved my knowledge of pediatric acute care	96 (79.3)	23 (19)	2 (1.7)
Improved my comfort in pediatric acute care	79 (65.3)	39 (32.2)	3 (2.5)
Improved my teamwork/communication skills in pediatric acute care	99 (81.8)	19 (15.7)	3 (2.5)
Improved my psychomotor skills in pediatric acute care	82 (67.8)	32 (26.4)	7 (5.8)

RESULTS

There were 121 participants, 103 (87%) were paramedics and 18 (13%) EMTs.

Participant agreement of simulation benefit for clinical practice was high, e.g. "I am more confident in my ability to prioritize care and interventions" (98.4% strongly or somewhat agree), and 99.2% of participants agreed the post simulation debriefing with facilitators" provided opportunities to self-reflect on my performance during simulation.

CONCLUSION

SimBox simulations are associated with improved self-efficacy of prehospital care providers for care of acutely ill or injured children, and can be widely used for both BLS and ALS pediatric training. The majority of participants promotes SimBox as a learning tool, suggesting that SimBox will have wide acceptance among EMS learners.

More Information can be found at: https://emscimprovement.center/programs/issues/emspecc/ Or by scanning this code:

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