



Socially-Distanced Learning: Perspectives on Instructor-Guided Virtual Simulation

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BACKGROUND

- The COVID-19 pandemic resulted in unexpected declines in pediatric patient volumes at CHCO
- Fewer experiential learning opportunities for resident physicians can reduce comfort and competency in managing a deteriorating patient
- Instructor-guided simulation may augment learning while maintaining social distancing

OBJECTIVE

- To assess the feasibility and acceptance of a virtually-conducted, instructor-guided simulation exercise on care escalation for pediatric residents

METHODS

- Piloted a simulation curriculum integrated into a virtual 2-hour educational session dedicated to escalation of care
- Conceptual frameworks included: situated learning, deliberate practice and reflection
- Outcomes included perceptions on virtual format learning tool and value of instructor guidance, measured through electronic survey

RESULTS

Curriculum

- Virtual patient experienced a hyperkalemic arrest using Laerdal software with real-time manipulation (Figure 1)
- Learning objectives focused on:
 - early recognition and management of an unstable patient
 - team communication
 - resource utilization
- Scenario concluded with instructor-led debrief focused on learning objectives
- 4 – 6 residents per breakout group during virtual simulation exercise

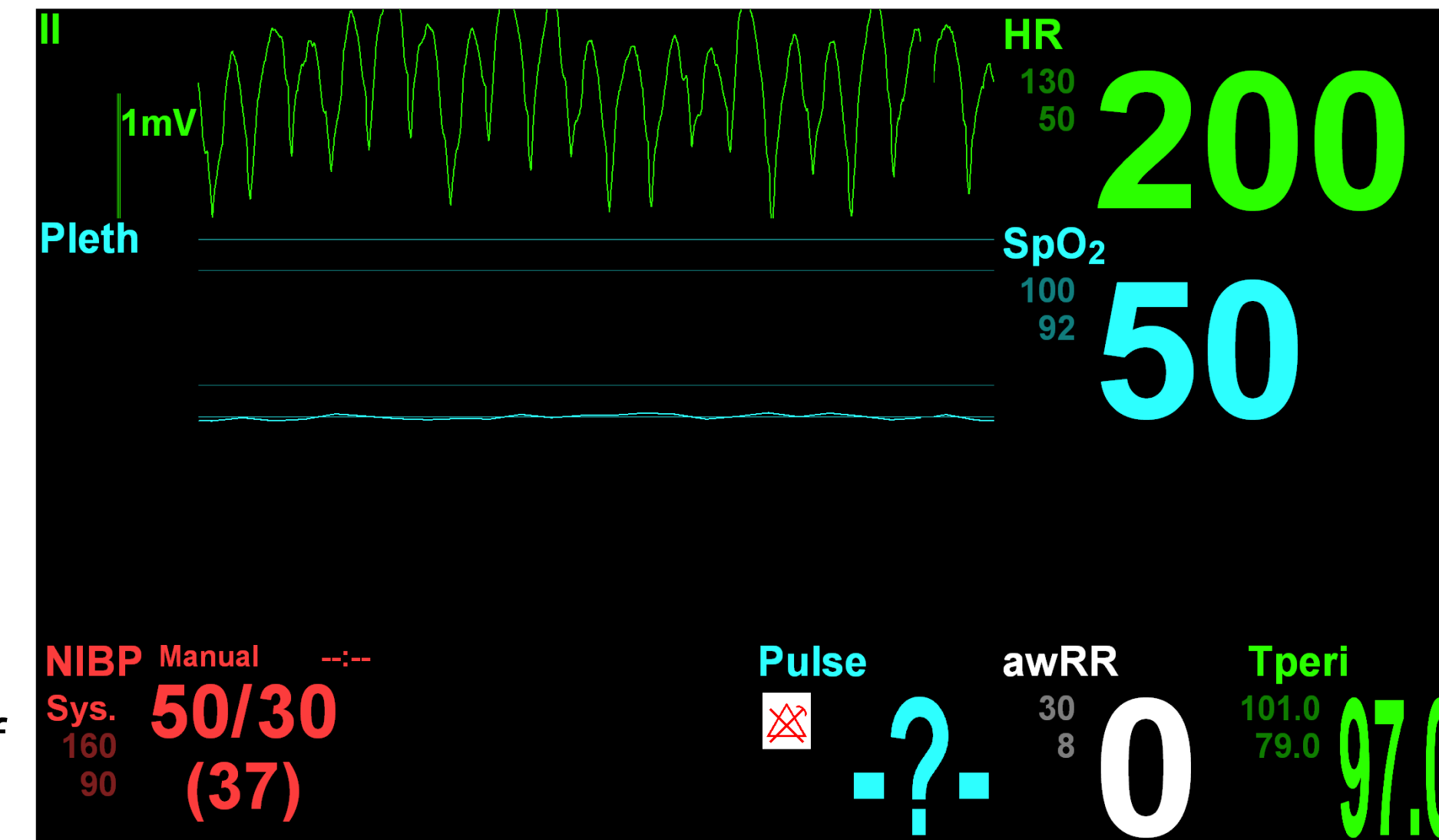
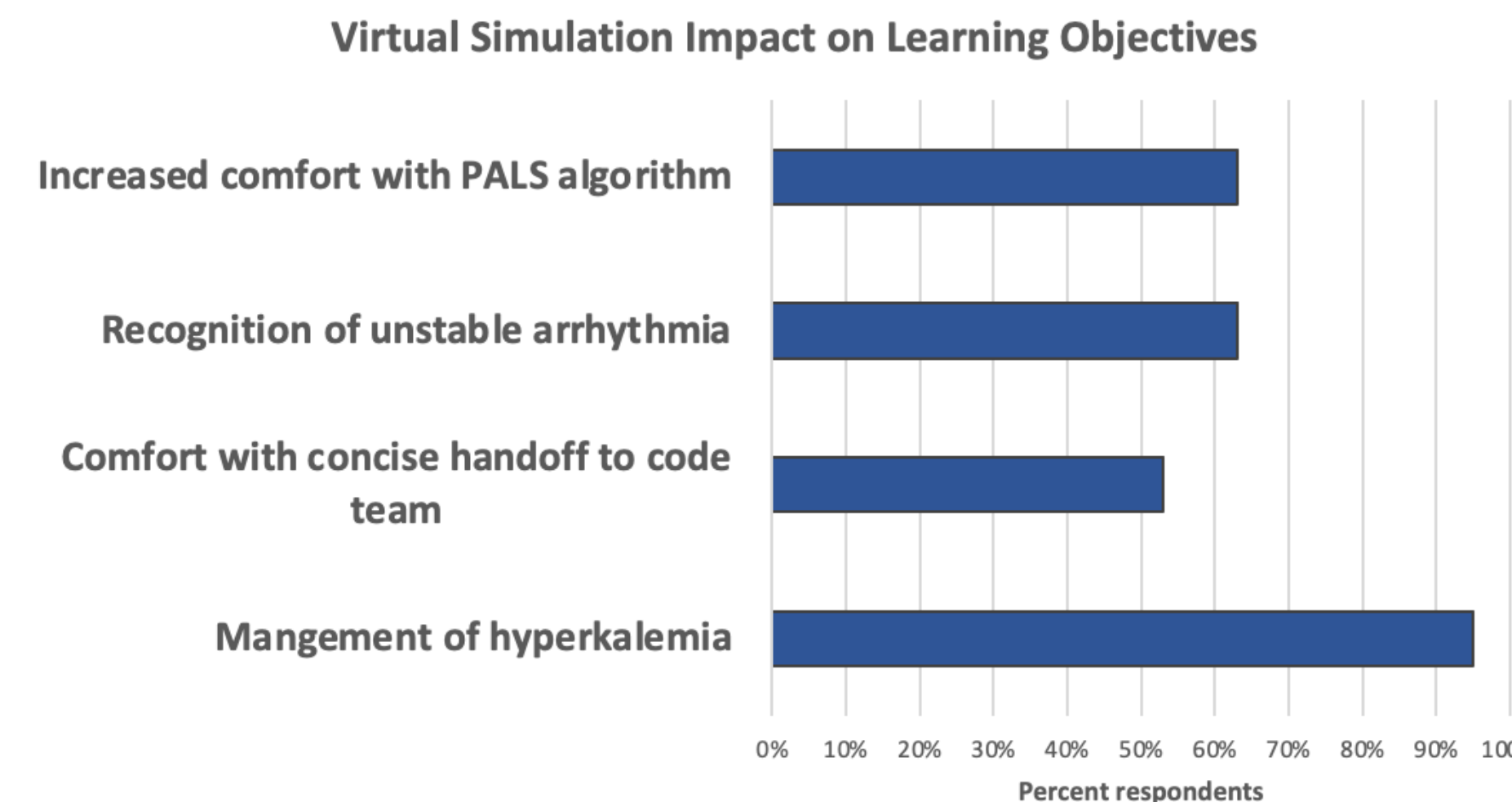
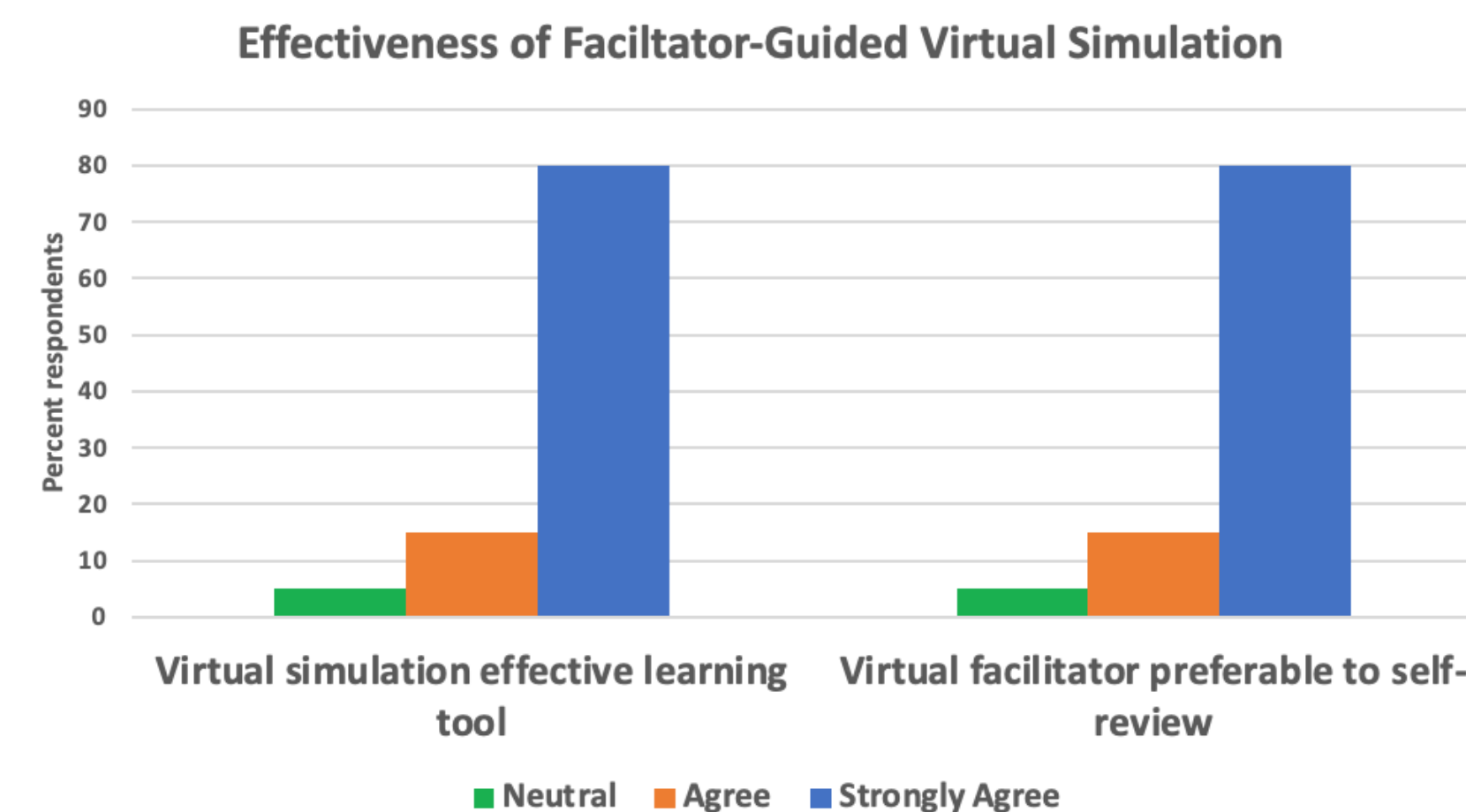


Figure 1: Participant view of virtual patient monitor

Participation and Perceptions

- The same 10-minute scenario was conducted on two separate days with 14 residents on the first day and 16 on the second day
- 30/38 (79%) of second-year pediatric residents participated in the virtual simulation exercise
- 20/30 (67%) of participants completed the post-curriculum survey
- 100% of respondents endorsed interest in future virtual simulation exercises



CONCLUSIONS

- Introduction of a virtual simulation exercise was feasible and allowed for greater learner engagement and interaction
- Survey results suggest a positive educational experience
- Presence of a facilitator for timely and specific feedback was preferable to self-directed reflection

IMPLICATIONS

- Virtual simulation could support learning during the ongoing social distance regulations required by the ongoing pandemic
- Compared to self-directed learning, instructor presence allows for reflective practice
- Virtual simulation could be broadly applied to remote learners in resource-limited settings to provide personalized and cost-effective learning

DISCLOSURES

- All authors have no personal/financial disclosures