RUTGERS
Ernest Mario School of Pharmacy

Evaluation of Large-Scale, Interactive Simulation in Poison Management & Drug Abuse Course

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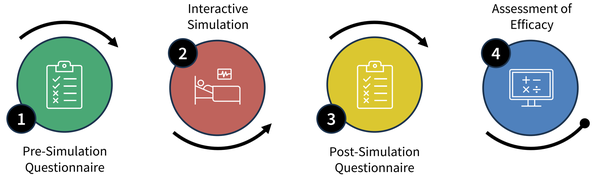
Background

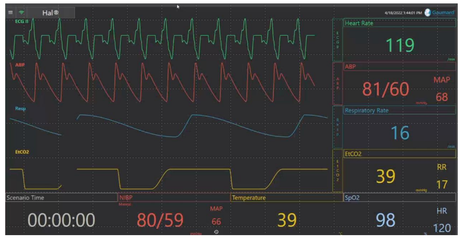
- High-fidelity simulation helps learners apply the skills necessary to identify and manage toxicologic emergencies
- Operationally challenging for courses with high enrollment
- Thus, often limited to clinical electives and skills labs
- Poison Management & Drug Abuse course
  - Required, 15-week course
  - Third year professional PharmD students
  - Typical enrollment ~200 students
- Piloted a high-fidelity simulation for a large classroom setting
- Purpose: evaluate its effectiveness on student aptitude and perceived confidence in the identification and management of toxicologic emergencies

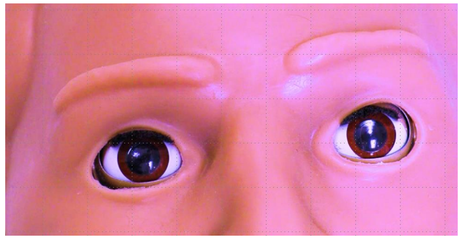
Methods

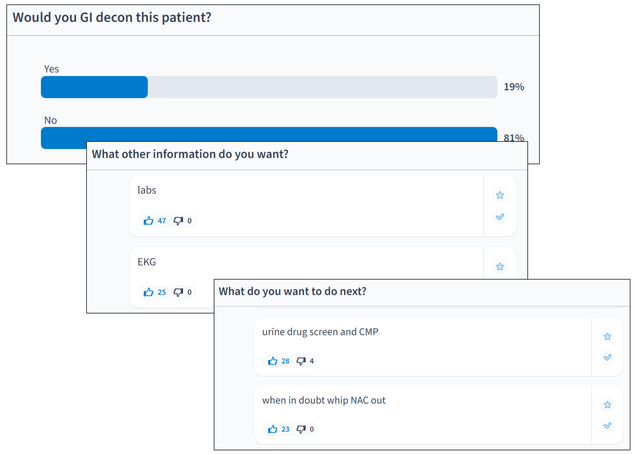


- Interactive simulation (voluntary participation)
  - Single session: 90 minutes, 2 cases with discussion/debrief
  - Scheduled on final day of class (cumulative)
  - Interactive polling software
  - Objectives: identify toxidrome, design treatment plan at critical decision points, recommend appropriate antidote
- Questionnaires: internet based (scan QR code to view)
  - Ten items, anonymous responses
  - Pre vs. post questions were identical
  - Unique, separate links for pre vs. post
  - 3 sections: demographics, assessment of knowledge, assessment of self-perceived confidence

Large-Scale Simulation





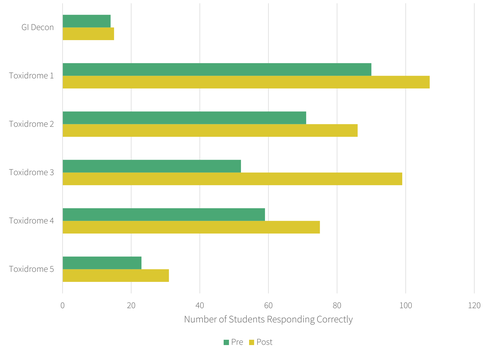


Results

Respondent Demographics

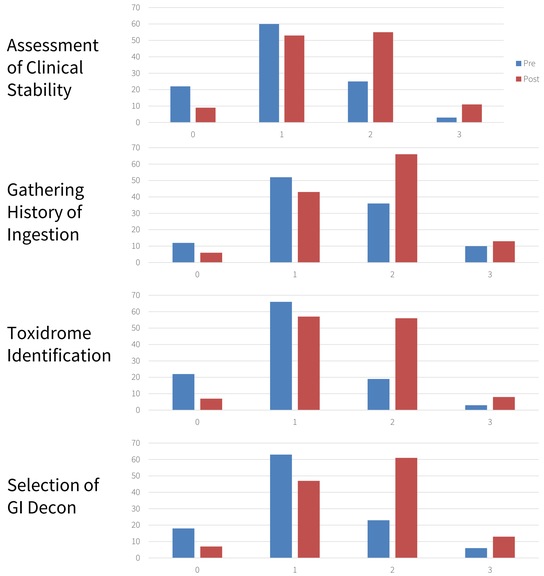
Respondent Characteristic	PRE-Simulation (n=110)	POST-Simulation (n=130)
Sex (n)		
Female	70	89
Male	36	36
Nonbinary	2	1
Prefer not to say	2	2
Prior Poison Center Experience (n)	1	1
No. Clinical Electives (n)		
1	77	95
2	25	24
3	4	2
4	3	5
5	1	2

Knowledge Question Responses



Results

Level of Confidence Question Responses



Conclusions

- Improvement in applied knowledge and student perceived level of confidence when managing toxicologic emergencies
- Future directions
  - Simulation before each exam (review vs. graded activity)
  - Pre-recorded “choose your own adventure” vignettes

Disclosures

Authors declare that they have no known competing financial or personal relationships that could have influenced the work related to this project