

Feasibility and evaluation of high-fidelity simulation education for acute clinical toxicology

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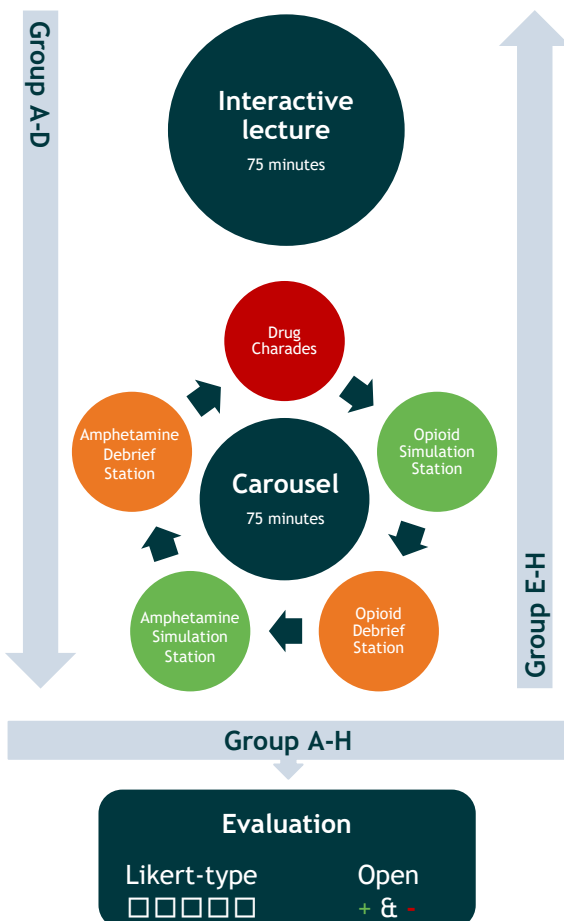
What is already known on this subject?

- Acute drug intoxications constitute a significant burden on emergency health services in Europe
- Medical graduates should be able to diagnose and manage toxicological emergencies
- Junior doctors lack confidence in managing toxicological emergencies
- Simulation-based medical education training might be an innovative way to teach acute clinical toxicology

Methods

We developed a simulation training for acute clinical toxicology that we taught in 2019, 2020, 2022 and 2023. At the 2 simulation stations 5 students were selected to perform the primary assessment and management of a high-fidelity mannequin simulating an intoxication, while their classmates observed.

Fig. 1: Programme simulation training
±180 fifth-year medical students divided into 8 groups (A-H)



Results

Likert-type questions 2019-2023 Response rates 16-99%	(Completely) Agree
The teachers were knowledgeable ¹	90.9-100%
The training was educational ¹	92.1-97.5%
The training was fun ²	96.1-97.9%
The training should be a compulsory part of the clinical rotations ²	95.8-98.4%
The quality of the training was good ³	93.6%
I feel more confident regarding the assessment of an intoxicated patient after the training ³	83.9%

¹2019, 2020, 2022 & 2023

²2019 & 2023

³2023

Recurring answers open-ended questions 2023

+ Practical application of theoretical knowledge	- Smaller groups
+ Interactive nature	- More time per station
+ Clinical relevancy	- More simulation training throughout curriculum
+ Fun character	- Lecture before stations

Conclusion

Our pilot study shows that simulation training for acute clinical toxicology was well-evaluated and feasible over a longer period.



European Open Platform for Prescribing Education
Teaching manual for simulation cases available on
www.prescribingeducation.eu



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