

Exploring undergraduate medical student perceptions of simulation training.

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RATIONALE

Simulation is widely used in post-graduate clinical education, particularly in anaesthesia.

Currently simulation is being increasingly used in undergraduate clinical education, although it is not uniformly available in Ireland.

OBJECTIVE

To elucidate the perceptions of undergraduate medical students of simulation training in their third year anaesthetic rotation.

METHODS

High-fidelity simulation sessions were incorporated into the third year undergraduate anaesthetic module.

Simulation sessions included common medical emergencies, such as congestive cardiac failure, respiratory failure and Basic Life Support.

A **13 item paper based survey** was administered to third year medical students following the completion of a one-hour simulation session.

Survey items explored

- Demographic information
- Student perceptions using a five point Likert-type scale .

Figure 1. Paper based survey administered post-simulation

Please complete the following Survey as part of ongoing research/review of our simulation training. Completion of the survey is entirely voluntary and will not impact on your grades. The survey is anonymous.

Demographic information:
Are you Male/Female? _____
What age are you? _____
Country of origin: _____

Please rate the following questions by circling on a scale from 1 to 5
1 is strongly disagree with the statement
2 is slightly disagree with the statement
3 is neither agree nor disagree with the statement
4 is agree with the statement
5 is strongly agree with the statement

The instructor(s) created a safe learning environment
1 2 3 4 5

You were encouraged to work as a team
1 2 3 4 5

You encouraged to participate in the group
1 2 3 4 5

The group worked well as a team
1 2 3 4 5

The group communicated well
1 2 3 4 5

The group had good clinical knowledge
1 2 3 4 5

You feel more comfortable with this clinical scenario having completed the simulation
1 2 3 4 5

The scenario has stimulated you to read more about this simulation yourself
1 2 3 4 5

You are more confident dealing with this situation now
1 2 3 4 5

The simulation was a valuable learning experience
1 2 3 4 5

Descriptive statistics were used to summarise the results.

RESULTS

53 surveys were collected.

50% of respondents were male and 50% were female.

56.9% of respondents were Irish.

Table 1. Demographic characteristics of study participants

	Total (N=52)
Age	
Median (IQR)	21.0 (4.0)
Gender (%)	
Male	26 (50.0)
Female	26 (50.0)
Country of origin (%)	
Ireland	31 (59.6)
Canada	6 (11.5)
Malaysia	4 (7.7)
Northern Ireland	2 (3.8)
Singapore	2 (3.8)
Asia (other)	1 (1.9)
Bulgaria	1 (1.9)
Iraq	1 (1.9)
Kuwait	1 (1.9)
Mauritius	1 (1.9)
Russia	1 (1.9)
USA	1 (1.9)

98.1% of respondents agreed or strongly agreed that the instructor created a **safe learning environment**.

96.2% of respondents agreed or strongly agreed that they were **encouraged to work as a team**.

94.3% of respondents agreed or strongly agreed that they were **encouraged to participate** in the group.

96.1% of respondents agreed or strongly agreed that the simulation **stimulated further reading** about the clinical scenario.

95.5% of respondents agreed or strongly agreed that the simulation session was a **valuable learning experience**.

84.6% agreed or strongly agreed that they were **more comfortable** with the clinical situation now.

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51.7% of respondents rated their **confidence** in dealing with this clinical scenario as good or very good following the simulation, **36.5%** were unsure, **11.5%** rated it as poor or very poor.

59.6% of respondents rated their group's **teamwork** as good or very good, **32.7%** were unsure.

42.3% rated their group's **communication** as good or very good, **44.2%** were unsure, **13.5%** rated it as poor.

54.2% rated their group's **clinical knowledge** as good or very good, **40.4%** were unsure, and **15.4%** rated it as poor.

DISCUSSION

Students perceived simulation as a valuable learning experience.

It increased students comfort in dealing with clinical scenarios, and stimulated further self-directed learning.

The respondents identified communication, teamwork and clinical knowledge as areas of deficit in their prior training.

CONCLUSION

Simulation could be used to identify deficits in undergraduate education as perceived by students.

It provides a platform to address unmet educational needs.

The results of this study warrant further investigation. The survey will be administered to further cohorts of students post-simulation.

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