

## Objective

To evaluate the efficacy of Generative-AI (GenAI) simulated virtual patients in comparison to traditional communication skills sessions.

## Introduction

Many medical students experience anxiety during communication skills sessions in front of peers (1). Additionally, finding specific psychiatric cases during placements for independent practice can be challenging (2). To address this, we explored the use of a GenAI virtual patients as an alternative learning tool.



Chi-Squared test showed no significant difference in similarity between GenAI platforms and traditional teaching methods, both platforms showed comparable similarities  $\chi(6) = 0.119, p > 0.05$ .

Qualitative responses: Overall, SimFlow received a greater number of positive responses compared to SomaLab. The table below presents analysis of the key themes across all responses:

## Method



Service evaluation conducted on medical students in years 2-5.



Data collected and imported into SPSS software for analysis.

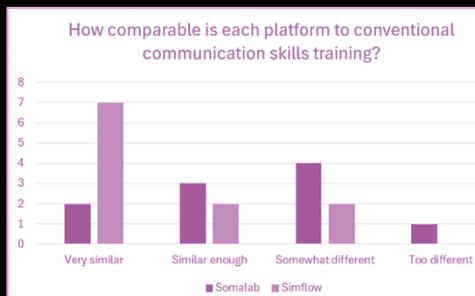


Data analysed using Chi-squared, Wilcoxon signed rank tests and thematic analysis

	SomaLab	SimFlow
<p>✓ Advantages</p>	<ul style="list-style-type: none"> <li>✓ Gave appropriate, detailed answers</li> <li>✓ Gave detailed feedback, keeping a transcript is especially useful</li> <li>✓ Human-like, emotional tone</li> </ul>	<ul style="list-style-type: none"> <li>✓ Gave appropriate, detailed answers</li> <li>✓ Human-like, especially in how coherent and realistic responses are</li> <li>✓ Natural flow in conversation, especially ability to interrupt the patient</li> </ul>
<p>✗ Disadvantages</p>	<ul style="list-style-type: none"> <li>✗ Clunky system to switch to patient disrupts natural flow</li> <li>✗ Delay in responding</li> <li>✗ Website is slow to load, feedback didn't load for all</li> <li>✗ Feedback would be better if based around Cardiff Uni ISCE checklist</li> </ul>	<ul style="list-style-type: none"> <li>✗ Gives no feedback</li> <li>✗ Lack of prompt given for patient background</li> <li>✗ Slightly robotic tone of voice</li> </ul>

## Results

The results to the main metrics in the questionnaire are shown below:



Similarity to conventional training:

- 82% Simflow
- 50% SomaLab

## Conclusion

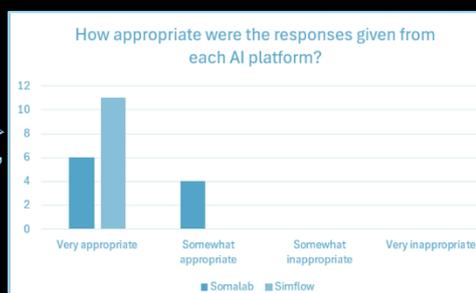
Both AI platforms demonstrated high level of effectiveness, with Simflow preferred. Participants highlighted the importance of incorporating these platforms into training.

Implementing such AI platform into training would help adapt teaching for a variety of students (3, 4).

This is in constructive alignment with a recent study which showed how using AI in medical education could markedly improve communication skills of all students, and tailoring content to student need (5).

AI response:

100% voted as "Very appropriate" or "Somewhat appropriate"



## References

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- Ganesanathan S, Li C, Donnir A, Anthony A, Woo T, Zielinska AP, et al. Changing student perception of an online integrated structured clinical examination during the COVID-19 pandemic. *Advances in medical education and practice*. 2021;887-94.
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