AI-Generated Patients in Suicide Assessment Skills Training: The Prometheus Educational Innovation Project

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BACKGROUND

Advanced training in suicide prevention requires well-developed skills in risk detection and clinical interviewing. Yet, it poses significant training challenges in both its practical and ethical dimensions.
Repeated, supervised practice with immediate feedback (deliberate practice) can be highly suitable in these contexts (Chow et al., 2015). However, its implementation requires substantial material and human resources.

A promising alternative to overcome these limitations is the development of virtual training environments (Crespo, 2023). This approach allows for the recreation of professional scenarios without compromising patient care.

Furthermore, AI-Generated patients can facilitate deliberate practice at a lower cost while ensuring the safety of both patients and students (Scherr et al., 2023). These simulated scenarios enable intensive and repeated practice, free from the constraints inherent to clinical settings (Galiana et al., 2023).

Within this framework, we propose the Prometheus Project, aiming to develop AI-based virtual patients for training in interview skills specifically tailored for suicide risk assessment.

METHODS

This educational innovation project comprises several phases.

A mixed-methods approach will be employed, conducting focus groups with professionals and health sciences students to identify perceived training needs.

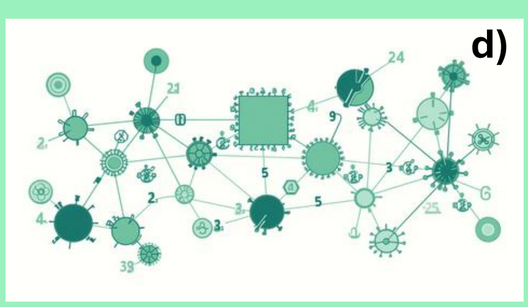
Subsequently, in collaboration with the company Metamedics and professors from UDIMA's Master's Degree in Suicide Prevention, eight clinical cases will be developed. These virtual patients will function as chatbots with which students can interact via voice or text.

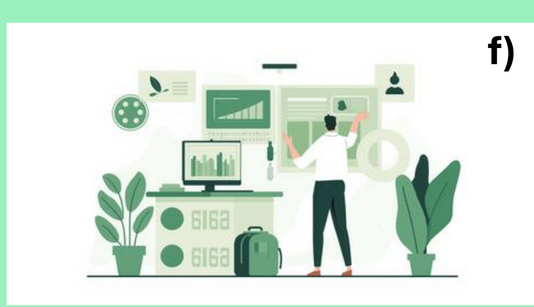
These eight cases will be designed with increasing levels of difficulty, based on the type of suicidality presented by the patient (ranging from passive suicidal ideation to imminent risk of attempt).

To assess competency acquisition and satisfaction, a single-group quasi-experimental pre-post design will be implemented across participating classrooms.

Competence will be evaluated using standardized clinical case scenarios, while satisfaction will be measured using the Students' Satisfaction and Self-Confidence in Learning Scale (Franklin et al., 2014) and the Expectations Fulfilment Scale (Pérez-Padilla, 2015).

METHODS - Project phases





a) Focus groups with experts and students
b) Thematic analysis
c) Case design by the research team

d) AI-mediated interview simulation
e) Implementation
f) Evaluation of the teaching model

EXPECTED RESULTS

At present, the focus groups have already been conducted. Preliminary findings show a high level of interest and acceptance among both students and faculty. The team is currently developing the IA cases in collaboration with METAMEDICS.

Innovative educational activities based on deliberate practice with AI-generated clinical cases are hypothesized to yield superior outcomes compared to traditional teaching strategies used in virtual classrooms.

Specifically, this approach is projected to exert a positive impact on students by fostering the development of professional competencies and skills, increasing self-confidence and satisfaction, and enhancing critical thinking abilities.

Implementing this emerging technology in the classroom will enrich the student experience beyond pre-recorded, scripted scenarios. By more accurately simulating real-world clinical environments, it is anticipated to foster a more robust and deeper learning experience.

Furthermore, given the sensitive nature of suicide assessment, this methodology guarantees a psychologically and ethically safe learning environment for both students and patients.

DISCUSSION

Deliberate practice with virtual patients may provide a safe and immersive environment for developing communicative and clinical competencies in suicide risk interviewing.

Additionally, it can achieve this without requiring direct exposure to crisis situations, thereby increasing ethical safeguards for both patients and students.

Nevertheless, AI does not replace expert supervision. This technology is proposed as a complementary tool for training in sensitive areas, and under no circumstances should it supplant human mentorship throughout the learning process.

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