

If We Build It, Will They Come? Developing an AI-Based Virtual Patient for Addiction Medicine Education

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Background: University of Sydney medical students only receive a one-week clinical placement in AOD throughout their training. Time-poor schedules, placement variability, and stigma limit development of confident, non-judgmental practice. AI-based virtual patients (VPs) offer a scalable, low-risk environment to practise clinically essential but potentially sensitive topics.

Description of Intervention: Our VP is a conversational AI chatbot built within *Cogniti* (USyd's bespoke AI platform). Students engage as a GP/hospital doctor, gathering patient substance use history, identifying risks, and formulating a management plan across a range of substances. A core feature is reinforcement of person-centred, non-stigmatising language. If students use stigmatising language, the patient signals discomfort and may disengage; appropriate rephrasing leads to re-engagement. Following the scenario, the chatbot transitions to a tutor role providing feedback and optional scenario-based MCQs. The VP was developed iteratively by a clinician-academic working group informed by the MD curriculum and *Language Matters* guidelines.

Implementation: Key implementation considerations include ensuring content reflects current Australian clinical standards, and enables student engagement despite being non-mandatory. The VP is currently undergoing working group testing prior to broader specialty endorsement and rollout.

Conclusion and Next Steps: VPs are not new in medical education, but their application with AI, and especially in relation to reinforcing non-stigmatising addiction communication is novel. Our planned evaluation includes: engagement metrics, pre-post confidence and attitudes measures, chat log analysis of stigmatising language, and pre-post student exam and placement performance comparisons. We welcome connection with others considering developing similar approaches.

Implications: Stigma is a key barrier to AOD care-seeking. Training student doctors to recognise and correct stigmatising language before clinical practice has direct equity implications. For First Nations communities, who experience disproportionate AOD-related harm and stigmatising health system responses, embedding non-judgmental communication at the foundation of medical training is particularly important.

Disclosure of Interest Statement: Nil