

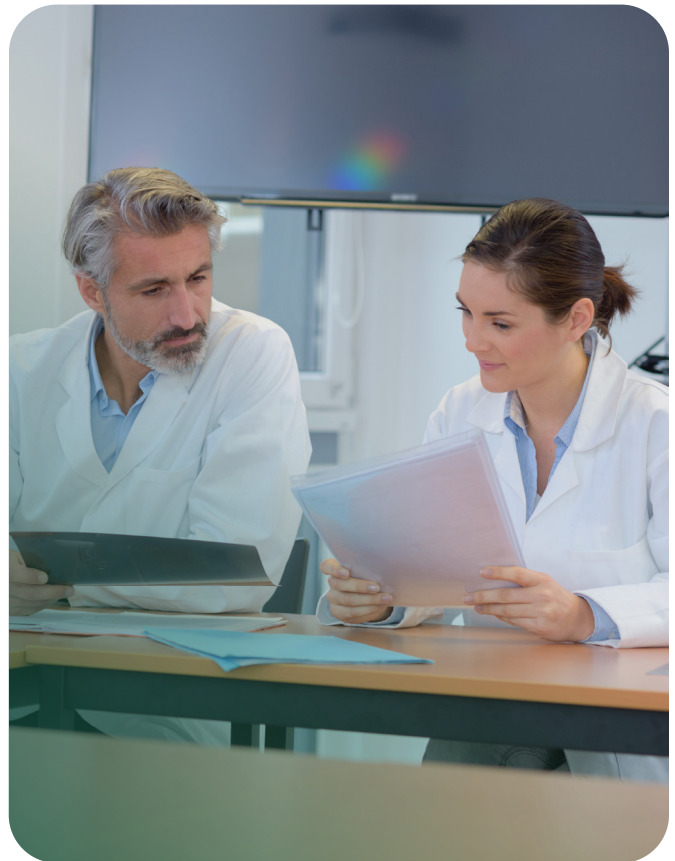
Virtual reality training solution for forensic psychology

Using virtual reality (VR) for medical and healthcare training provides an immersive, 360-degree experience where the user can interact with the environment, tools, equipment and human avatars in the environment. Immersive training solutions allow healthcare professionals to develop new skills, update and improve their skills, and exercise judgment and decision-making. VR solutions allow the user to practice skills, judgment and decision-making in an immersive environment that is cheaper and safer than relying on live training alone.

The challenge

St. Joseph's Hospital is recognized as a leading academic and research centre, known for its excellence in respiratory care, kidney and urinary care, mental health and addictions, surgical services, cancer surgery, and women's and infants' care. It is affiliated with McMaster University, based in Hamilton, Ontario. McMaster is known and recognized as one of the top three most research-intensive universities in Canada.

Delivering excellent medical training to clinicians requires mastering knowledge of processes and protocols and exercising judgment to make the right decisions in any clinical setting. For health professionals working in forensic psychology, a training solution was required that tested clinical knowledge of process and protocol and exercised judgment and decision-making in complex clinical settings—including those where there is a risk of violence.





The project

Calian developed a VR training experience for St. Joseph's and McMaster to train medical staff in a forensic psychology setting. Our team worked directly with the St. Joseph's and McMaster training leaders to develop a solution for forensic psychology. First, we developed the physical environment. Forensic psychology wards are controlled spaces, designed to put patients at ease while ensuring continuity of care. We developed rooms and added furniture, doors, windows and amenities to accurately simulate the space.

Next, we developed a range of scenarios and patient behaviours and response profiles to represent a broad range of situations clinicians could face. Presenting a range of potential scenarios is essential to giving clinicians a variety of different situations to test judgment and decision-making to meet the needs of the moment. The range of scenarios was developed through direct engagement with clinicians to build scenarios that happened in real-world clinical settings.

The results

The training solution was delivered to St. Joseph's and McMaster and is being used to train doctors, nurses and other medical professionals working in forensic psychology on a wide range of scenarios. The configurability of the VR training solution allows leaders at St. Joseph's and McMaster to present simpler or more complex training scenarios to users, based on their clinical experience. Newer clinicians can exercise their judgment and decision-making in simpler immersive scenarios, while more experienced clinicians can be put to the test with more challenging, complex scenarios. The immersive training solution provides leaders with the flexibility to present the right training to the right audience.



What's next?

VR solutions have significant potential across many medical specializations. Calian works directly with medical professionals and leaders to understand clinical procedures, the tools and equipment used, the desired clinical outcome, and the role of judgment and decision-making. Our approach relies on building trust-based relationships with medical leaders to develop immersive, realistic and high-value training solutions.

Calian's approach and technology have applications for a range of medical specialties, from routine patient diagnostics and interactions to high-stress and emergency situations. These solutions are useful for students learning skills for the first time and for developing the skills of experienced clinicians.

Whatever the training need, Calian can develop an immersive solution for you.



Calian® helps people communicate, innovate, learn and lead safe and healthy lives. Every day, our team embodies our core principles of unwavering customer commitment, integrity, innovation, respect and teamwork, to engineer reliable solutions that solve complex problems. That's Confidence. Engineered.

We are a growing company headquartered in Ottawa with offices and projects spanning North American, European and international markets with a focus on innovative healthcare, communications, learning and cybersecurity solutions.