GigXR

ROI in XR: A look at Standardized Patients

Today's students have the advantage of technology that enables them to gain more skills in a no-risk environment before they head out in the real world and to have tools that aid them in diagnostics and monitoring.

However, those educational aids don't train medical staff in how to respond to a patient who, say, is facing a difficult diagnosis, or how to read a patient's face and movements to assess pain levels.

While high-tech manikins can help students improve their interpersonal skills by simulating a real patient, standardized patients (SP), or patient actors, have become the gold standard in helping students master this key area of their learning.

Standardized Patient Programs

The advantages of an SP program are clear: the team of SP, moulage artist and the faculty member writing the scenario can offer a level of authenticity that no other simulation method can match. After all, even in a world of cutting-edge learning aids, nothing can replace a real, flesh-and-blood human taking part in the process.

Research [has proven](#) that SP programs can create a measurable improvement in student test scores. In addition, SPs can be [valuable instructors](#) in their own right, if they are good raters and having strong interrater reliability.

The key drawback of these programs is cost. While SPs usually earn somewhere in the [$15-$20](#) an hour range, expenses pile up quickly by the time your program needs even a few SPs. Training, faculty time and possibly space needs drive those numbers up even more quickly. Training a handful of SPs for a couple of sessions can cost nearly $1000, and even a small program can be up to [$100,00 annually](#).

App-based SP programs

While nothing can quite replicate having a real person in the room, extended reality (XR) enables highly realistic volumetric video of holographic standardized patients. Students wearing a headset, such as the Microsoft HoloLens 2 can view patients simulating a wide variety of conditions, from COPD to burns.

Because app-based programs lack the incremental costs of training and paying actors per hour or sessions, as well as not requiring the services of a moulage artist or a large amount of dedicated simulation lab space, they democratize access to this type of training. Costs are a fraction of those for an in-person program.

App-based XR approaches have other key benefits besides cost savings. Customizable scenarios allow faculty to create and recreate a wide range of pathologies within a session. This can be difficult with patient actors, as each has to be matched with a specific scenario and can't necessarily portray multiple pathologies due to preference, personal health or other factors.

Why SPs are a vital part of medical education

Whether your program uses real SPs, holographic ones or a hybrid of both approaches, it's key to realize how many vital skills are taught through this approach. Patient communication, empathy and diagnosis are all developed with this method.