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## Therapists Use Virtual Worlds to Address Real Problems

### An emerging technique to help troubled teens combines role-play in computer-generated environments with talk therapy

By Karen A. Frenkel

When a troubled 13-year-old named Joe first entered the [Kids in Transition](#) program in 2007 in Camden, N.J., he hardly spoke to his therapist. Like many teens at this residential mental health treatment facility, he was admitted because he had trouble controlling his anger, had run away from home several times, and had a history of run-ins with the law, according to Heather Foley, a social worker with the program. Therapists typically encourage patients like Joe to get at the core of their problems via face-to-face role-playing—pretending to be in a situation and having the patient practice how to handle it. But Foley says this approach was a nonstarter for Joe, whose confrontational behavior and attention deficit hyperactivity disorder ([ADHD](#)) impair his ability to engage and focus in this way.

When that approach failed, Foley enrolled her young patient in a program that treats teens using something familiar to most of them: the virtual world, in this case a customized one called Simulated Environment for Counseling, Training, Evaluation and Rehabilitation ([SECTER](#)).

Joe is one of 20 teens who have been treated using the program that allows them to role play in a 3-D virtual world environment in which they communicate with therapists through avatars.

Foley says that once a week for eight weeks she and the boy sat at computers in her office and donned headphones so that they could communicate with one another's avatars through the Internet, just as gamers do in the virtual environments of Second Life and World of Warcraft. She notes that SECTER avatars can assume different postures as do humans when interacting with one another. Users can also add special features to their avatars, including facial expressions, hair and skin color, and different mannerisms. For instance, Foley says, Joe made his avatar do high fives and sport a swagger when it moved.

In addition to treating troubled teens, virtual environments have been used to help treat [Asperger's syndrome](#) (a disorder resembling autism), [anorexia and bulimia](#), [anxiety disorders](#), [post-traumatic stress syndrome](#) and [alcoholism](#) as well as physical disabilities in [stroke victims](#).

Foley, who works for [CFG Health Systems](#) in Marlton, N.J., (which created SECTER along with [Greenleaf Medical](#) in Palo Alto, Calif.), says Joe played himself and she role-played his adoptive mom, with whom he had a combative relationship in real life. At first, Joe refused to engage—and instead moved his avatar to make it flee from Foley's, mimicking his actions in response to his adoptive mom.

He made his avatar run through the computer-generated town's streets and along its beach. Foley, however, followed with her avatar. "My role was to not give up on him," the therapist says. "I made the virtual mom avatar chase Joe's avatar everywhere so Joe would realize he couldn't find a way out of a conversation." To help Joe stay focused, Foley set clear limits and expectations for each half hour role-playing session, rewarding him afterward with five minutes of free play in the virtual world.

By the third session, she says, Joe came to like his virtual self, whom he refers to as "My Guy," because he could change his appearance according to mood. "If I was angry, I'd turn him invisible," he tells *ScientificAmerican.com*. "If I was happy, I'd put him in an ambulance driver's suit." (SECTER allows participants to change the appearance of their avatars to reflect different activities taking place throughout the virtual town.)

Foleys says that Joe had a breakthrough at the end of the seventh session, when she used SECTER's "after action review" feature, which replays role-playing sessions from any avatar's point of view. In this case, she wanted Joe to see the interaction from Foley's—or his adoptive mom's—perspective. She says the feature helped Joe recognize that his behavior in the virtual world—and by virtue of that in the real world, too—"was inappropriate and hurtful."

Joe says that the exercise has given him new insight. "I looked ridiculous because of how I acted," he now admits. A few days later after the eighth and final SECTER session, Foley says Joe was more responsive during a family therapy session than he had been before the virtual role-playing. She says that instead of blowing up, running away or becoming defiant or defensive, he calmly told his adoptive mother during the session that he felt rejected and abandoned by her. Foley believes that without SECTER, it might have taken six months or longer—rather than eight weeks—for Joe to make similar strides.

But not all therapists are convinced that virtual environments are any more beneficial than the traditional tools of the trade, noting that they have long employed similar techniques of playing back audio- and video-tapes of therapy sessions. Psychotherapist [Robert Gaines](#), co-founder of the [Child and Adolescent Psychotherapy Training Program](#) at the [William Alanson White Institute](#) in New York City, says he's impressed with Joe's quick progress and praises SECTER for enabling therapists to "meet kids" in virtual worlds similar to those in which they've grown up.

Still, he adds it's the therapists—and not necessarily the technology they use—that matter most. "Techniques don't do therapy. People do therapy, therapists do therapy. There is no magic, universally effective technique," he says. "Whether cognitive, behavioral, psychoanalytic or virtual, they're just adjuncts to the main thing, which is the therapist using the relationship in communication with the child." Gaines cautions that indiscriminate role-playing in virtual worlds could have negative consequences. "Some kids' hold on reality is tenuous," he says, "and if you loosen it with play, they can become disorganized, threatened, and their behavior can deteriorate."

Yet [John Suler](#), a psychology professor at Rider University in Lawrenceville, N.J., and author of the online book *The Psychology of Cyberspace*, says virtual therapy is here to stay. Moreover, "it will get more sophisticated and complex," he says. "Computers allow ways to take apart or recombine various ways of communicating—speaking, text, auditory, realistically based or imaginatively contrived." These can be combined in unique ways, he says, depending on the person's problems, situation and personality. Therapist and patient can be in different parts of the real world and work remotely. Because of that power and versatility, Suler says, virtual worlds are moving us into another range of psychotherapeutic activities.

## Further Reading

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