

# Chapter 17

## Virtual Reality Therapy: The Power of Role-Playing Social Skills

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### ABSTRACT

*Role-play (RP) is a technique for teaching communication and training interpersonal skills, known for its effective way of transmitting learning, in which simulation is one of its main distinguishing features. Social skills, moreover, are behaviors that involve the interpersonal relationship carried out in each social context. Although social skills training is consensually considered one of the most beneficial approaches to improving social functioning in individuals with mental illness, long-term motivation deficits diminish its effectiveness. Virtual reality technology effectively solves the motivation problem, providing a realistic and immersive experience that allows for role-playing of social skills. They provide presence and allow individuals to practice and enhance their social skills. The benefits of both RP and VR technology are clear, and the combination of the two has even greater potential. However, there is still a limited amount of research on the impact of VR in the practice of RP, so further investigation is crucial.*

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## **INTRODUCTION**

Role-play (RP) is a very useful and effective technique for teaching communication and training interpersonal skills, being known for its effective way of transmitting learning, in which simulation is one of its main distinguishing (Bote, 2021). Social skills are behaviors that involve the interpersonal relationship carried out in a given social context (Dechsling et al., 2022). The RP technique has been widely applied as an intervention aimed at improving these skills and is often used to teach and train social and communication behaviors and skills (Bote, 2021). With the simulation of situations at the core of its practice, the use of RP in mental health education turns to learn into a more active form and centered on its participants (Bote, 2021; Rønning & Bjørkly, 2019), encouraging participation and retention of the content covered (Bote, 2021). Another possible form of simulation may be through the use of virtual reality (VR) (Bote, 2021).

Although social skills training is consensually considered one of the most beneficial approaches to improving social functioning in individuals with mental illness, long-term motivation deficits diminish its effectiveness (K. M. Park et al., 2011). The use of VR technology in the training of social skills has been suggested as an alternative that seems to be effective in solving the motivational problem (K. M. Park et al., 2011). Thus, and allied to what was previously stated (G. Bote, 2021), the use of VR is taken as an approach with the potential for the practice of role-play of social competencies (K. M. Park et al., 2011).

VR technology has been recognized as a promising tool for assessing and treating mental illness (K. M. Park et al., 2011). The virtual environment can facilitate role-playing, since participants do not rely on imagination for the defined social context scenario (K. M. Park et al., 2011). In this way, the technology gives the individual a sense of presence, creating environments with realism and not simply likenesses, in which social interaction with avatars or virtual humans is possible (K. M. Park et al., 2011).

By simulating the real world, VR allows individuals to safely explore social situations they may not be able to cope with in real life. A socially friendly virtual world could minimize social anxiety. Specifically, the safe real-world scenarios created by VR can be reused and practiced indefinitely (Liu, 2023). Results have shown significant improvements in social skills training using VR versus traditional role-play (Sapkaroski & Dimmock, 2021).

Difficulties in interacting in the world are at the core of mental health issues and VR presents itself as a medium with enormous potential to help this population overcome or improve mental health issues (Freeman et al., 2017). This recovery concerns thinking, reacting, and behaving differently in certain situations, the training of which can be accomplished through the RP of these same situations and scenarios (Freeman et al., 2017).

VR can be described as a tool distinct from other media by human-computer interactions that offer qualities such as engagement, immersion, and presence, allowing immersion in interactive worlds generated by a computer, which digitally replace real-world sensory perceptions, representing the sense of presence in new environments (Freeman et al., 2017). This sense of realism is due to the precise control of sensory cues that this technology is able to manipulate, particularly for auditory, tactile and olfactory systems (Maples-Keller et al., 2017). Like this, there is a description by the users of a sensation where the real experiences in the real environment are similar to those reproduced in the virtual environment (G. Bote, 2021).

Thus, using VR, it will be possible for the entire population to train appropriate responses for each situation, where they show a greater difficulty, as well as adaptation to each pathology that may be associated. During the simulation, it should be possible to regulate the difficulty, thus being able to perform

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