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VR Serious Game to Treat Schizophrenia

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BACKGROUND

The project's goal is to use a virtual serious gaming scenario in a hospital setting to provide medical treatment for people suffering from schizophrenia, a chronic mental illness that produces delusions, hallucinations, and other symptoms.

OBJECTIVES

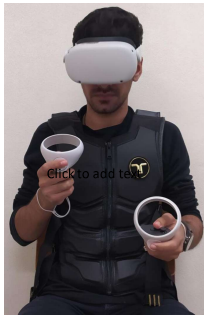
The goal of this project is to develop virtual environments and strategies to assist people with schizophrenia in overcoming barriers in their daily lives and actively reintegrating into society. It's connected to the Green Health initiative.

Additionally, to investigate ways to use virtual reality to inspire curiosity and pleasant feelings in those who use it, thereby developing this and related technology, as well as the health-related sectors.

METHODOLOGY

Based on the Marques station in Porto, Portugal, a virtual environment was created. Blender was used to make 3d models, while Unity was utilized to develop other elements, such as the virtual reality integration. The setting includes benches, televisions, trash cans, food machines, lighting objects, signposts, NPCs (non-player characters) in the station or on the train, tracks, a four-car train, and the station itself.

A haptic vest is used because it improves immersion, which benefits the project and leads to better patient care outcomes. In addition, an Apple Watch smartwatch is used to detect the patient's heartbeat.



RESULTS AND CONCLUSIONS

Schizophrenia is a psychiatric illness for which there is no cure and which requires extensive research. Each patient has unique symptoms that must be addressed in a unique approach in order to get better therapeutic outcomes.

With the use of serious games, virtual reality and its immersiveness already bring fascinating health results, but it also necessitates ongoing research and adaptation.

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