An Integrated Platform Leveraging Virtual Reality Fused With Artificial Intelligence, Grounded in Cognitive-Behavioral Therapy Methodology, and Reinforced With Supportive Measures, To Ensure the Success of the Rehabilitation Journey

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Roughly 296 million individuals suffer from substance addiction, while another broad spectrum contends with behavioral addiction. The addict encounters myriad challenges throughout the therapeutic journey, leading to avoidance of treatment, such as financial impediments due to inadequacies in treatment center investments, and psychological and social burdens stemming from societal stigmatization and prejudgments, compounded by the difficulty for addicts in rural areas to access treatment centers. This study aims to develop a comprehensive system reliant on Cognitive Behavioral Therapy (CBT), utilizing virtual reality and artificial intelligence techniques alongside principles of supportive and adjunctive care throughout the rehabilitation process. An electronic application provides a virtual therapy space with professional monitoring, thus enhancing the delivery of rehabilitative care. The application encompasses virtual therapeutic sessions in virtual reality, following a sequential therapeutic plan and imparting life skills, instilling positive thoughts, and eliminating negative thoughts and behaviors by employing virtual reality techniques in diverse virtual environments experienced by the addict, and artificial intelligence techniques such as assignments, worksheets, and tests that reinforce ideas and master skills, in addition to supportive features contributing to treatment success. Results indicated overall effectiveness of the application (87%), its resolution of issues facing this demographic (85%), and its employment of sound methodologies (88%). Specialists valued the platform's services in bridging the gap for this demographic. Addressing all issues will lead to an improvement in quality of life and a reduction of burdens on the rehabilitation care system.

Awards Won: