IRIS An Interactive Video Game for Children with Long-Term Illness in Hospitals

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Abstract: Information technology has long served the needs of individuals for learning and entertainment, but much less for children in sickness. The aim of the proposed online video game is to provide immersive learning opportunities as well as essential social and emotional scenarios for hospital-bound children with long-term illness. Online self-paced courses on chosen school subjects, including specialised software and multisensory assessments, aim at enhancing children's academic achievement and sense of inclusion, while doctor minigames familiarise and educate young patients on their medical conditions. Online ethical dilemmas will offer children opportunities to contemplate on the importance of medical procedures and following assigned medication, often challenging for young patients; they will therefore reflect on their condition, reevaluate their perceptions about hospitalisation, and assume greater personal responsibility for their progress. Children's emotional and psychosocial needs are addressed by engaging in social conventions, such as interactive, daily, collaborative mini games with other hospitalised peers, like virtual competitive sports games, weekly group psychodrama sessions, and online birthday parties or sleepovers. Social bonding is also fostered by having a virtual pet to interact with and take care of, as well as a virtual nurse to discuss and reflect on the mood of the day, engage in constructive dialogue and perspective taking, and offer reminders. Access to the platform will be available throughout the day depending on the patient's health status. The program is designed to minimise escapism and feelings of exclusion, and can flexibly be adapted to offer post-treatment and a support online system at home.

Keywords: long-term illness, children, hospital, interactive games, cognitive, socioemotional development

Conference Title: ICEHFD 2023: International Conference on eHospitals and Future Directions

Conference Location : Athens, Greece **Conference Dates :** October 16-17, 2023