

CONFERENCE ABSTRACT

Improving the empowerment and knowledge about chronic diseases of children and adolescents through the use of a video game

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Introduction

The increasing prevalence of many chronic diseases influenced by unhealthy lifestyles is a reality. In addition, when these diseases affect children and young people, special attention should be paid to evaluate their specific needs, offering empowering solutions that, in turn, minimize the impact on their daily lives.

Context and objective

ICTs are the perfect ally to offer children and adolescents tools for their self-care and that favor their monitoring, treatment and empowerment. In addition, all involving sectors of society that regularly interact with them (eg. family, health professionals) must always be kept in mind, paying special attention to the school environment.

In this context, TichronVirtualPet has been created: it is a app video game with two objectives (i) to promote the empowerment of children with a chronic condition and (ii) to help any child to understand what type of care is involved in these diseases.

Targeted population

The video game is designed so that it can be played by any child or adolescent from 8 to 16 years old, with or without a chronic disease.

Highlights

The app is based on a virtual pet that suffers from a chronic disease (diabetes, asthma or obesity), so children must take care for it, as this type of game was considered the most appropriate for this context after a process of co-creation with the different sectors involved. The main innovation elements include (i) the simulation of an attack (eg, a hypoglycemic attack) in which the pet needs the user to do certain actions to help it and (ii) the interaction with the real world, through physical exercise (based on jumping and walking activities) while playing the video game.

A pilot was carried out in three Spanish schools, involving a total of 132 children (56,1 male) from 9 to 16 years old (93,2% 9 to 12 years old), who used the app in a school environment with the support of their teachers. Later, they covered a questionnaire in which they answered about both the recreational and educational factor using the five-level Likert scale to provide the answers.

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Comments on transferability

The app is part of the Tichron project (Interreg Sudoe), is available in four languages and can be downloaded for free from Google Play, so anyone can access and play with it.

Conclusions

The most relevant data from the final questionnaire indicate that 75% of the children agree that the game has helped them to learn more about chronic diseases, 77.3% affirm that it has helped them to help other children that suffer from chronic diseases and 87.1% indicate that it helps them remember that we should all lead a healthy life (as most of the advices can also be applicable to all people, being based on recommendations for healthy habits). Therefore, the educational value of the game is widely demonstrated, contributing to the understanding of chronic conditions and healthy habits.

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