

The Effect of Exergames on the Quality of Life among Pediatric Oncology Populations

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Abstract

Clinical treatments against cancer disease, contribute decisively to the deterioration of physical and mental well-being of pediatric oncology patients, however, exercise has been proposed as a safe, nonpharmacological intervention strategy for pediatric populations suffering from chronic diseases, which affects positively the quality of life of patients. The purpose of this study was to identify perceived benefits associated with participation in a therapeutic exercise program through digital interactive games among children who have been diagnosed with cancer. A total of six children, aged from five to nine years old, boys and girls, who were staying at the hostel of the Association of Friends of Children with Cancer in Thessaloniki, participated in a 12-week therapeutic exercise program, with the use of the Xbox Kinect™ console. The frequency of attendance was 3 times per week, while the duration of each training session was set at 30 minutes. Data were collected using a combination of observations and individual interviews with the children, one of their parents, and a staff member of the hostel. From the qualitative data analysis, four major themes were aroused: (a) enhancement of social skills, (b) decreased cancer-related fatigue, (c) positive emotions, (d) control of negative feelings. The involvement of cancer patients in a therapeutic exercise program that combines exercise with digital interactive games plays a vital role in strengthening the child's social skills, reducing the perceived fatigue, enhancing positive emotions, as well as decreasing the negative psychological effects due to cancer treatment.

Keywords: children; cancer; digital interactive games; therapeutic exercise; wellbeing