# The Effect of Videogames on the Quality of Life of Individuals Facing Cancer: Meta-analysis and Systematic Review

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## Abstract

**Background**: Playing videogames is an emerging approach in oncological care with the potential to improve health outcomes, according to recent studies. Videogames interventions focus on learning to improve coping strategies and strengthen treatment compliance through increased motivation. Exergaming, a new trend of exercising through video games, can replicate light- to moderate-intensity physical activity by incorporating whole-body movements.
**Objective:** This study aimed to investigate the effect of gaming on quality of life (QoL) and fatigue in cancer patients during active treatment by reviewing current published research.
**Methods:** A comprehensive literature search was performed to identify peer-reviewed journal articles that included the use of digital health interventions, including videogames, among patients undergoing cancer treatment. The search was conducted using PubMed, EMBASE, and the Cochrane Library.
**Results:** Changes in quality of life in intervention groups compared to controls across three eligible studies reflect the potential for games to improve QoL (SMD=0.69, CI [-0.10, 1.49]). Assessing fatigue score changes after gaming interventions in five eligible studies suggests a tendency for exergames to reduce fatigue (SMD=0.72, CI [0.27, 1.17]).
**Conclusion:** Videogames are promising tools to improve quality of life and reduce fatigue in oncological care.



## Biography (150 word limit)

Seba Aljomaa is a pharmacist with a Master's degree in immunology, focusing on breast cancer. Currently, she is a PhD student in pathological sciences, exploring digital health as a cutting-edge approach in oncological care. Her research is driven by a passion for clinical trials aimed at improving the lives of cancer patients and addressing the limitations of standard care. With a robust background in both clinical and research settings, Seba is dedicated to integrating innovative digital health solutions to enhance patient outcomes in oncology. Her work represents a convergence of pharmacological expertise and advanced digital methodologies, paving the way for transformative advancements in cancer treatment.

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