



Relationship between headache prevalence and video games use: a narrative review

Jonathan Lima de Oliveira Silva, Gabriel Pieri, Flávia Julyana Pina Trench

Universidade Federal da Integração Latinoamericana, Foz do Iguaçu, Paraná

Introduction

Since the late 20th century, video games have become a ubiquitous form of entertainment, growing in popularity with technological advancements and the diversification of platforms. While video games offer benefits such as enhanced socialization, a sense of responsibility, teamwork, and planning skills, excessive use can lead to health problems, including headaches, musculoskeletal pain, back pain, and anxiety.

Objective

To review the literature on the relationship between video game usage and the prevalence of headaches in the general population.

Methods

A comprehensive search was performed in the PubMed database for articles categorized as clinical trials, meta-analyses, randomized controlled trials, and systematic reviews using the descriptors "video-game OR videogame OR electronic game" and "headache OR migraine." The inclusion criteria were articles analyzing the relationship between headache and video game usage across all age groups and genders.

Results

The search yielded 57 articles, of which 10 met the inclusion criteria deemed pertinent to the review's objective. The findings demonstrated considerable heterogeneity and divergence. A significant portion of studies focused on children and adolescents, employing questionnaires as the primary data source. There was also variability across study populations, with some articles examining highly specific groups, such as professional gamers, potentially skewing statistics relative to the general population. Moreover, challenges arose in defining the scope of video game studies, as some researchers examined overall electronic device use, including video games. While findings were inconclusive, they suggested a noticeable correlation between increased headache prevalence and prolonged exposure to electronic devices, without specifying a particular type of headache.

Conclusion

A correlation appears to exist between video game usage and headache prevalence; however, the literature lacks nuanced studies addressing this association, particularly regarding the removal of confounding factors and identification of other triggers and causes. The available data suggest a direct proportional risk, especially in younger populations, which have been predominantly studied. Further rigorous research is needed to identify risk factors, more affected groups, and appropriate prophylactic measures.