

Abstract

Implementation of techniques for the treatment of anxiety symptoms for the development of a video game with biofeedback

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Abstract: Anxiety is a problem of global interest, an increasingly relevant mental health issue, and adversity with few easy-to-reach solution alternatives. Traditional clinical interventions for this problem are effective, however, they do not achieve the necessary scope for all population segments. Those who have had the highest percentage of incidences are people considered young adults. The principal focus of interest in this segment is video games, one of the most widespread forms of recreation today. Demonstrating the effectiveness of video games as an additional tool for the treatment of anxiety, together with a biofeedback application to measure the physiological-emotional state, will allow us to know the necessary approach to obtain an alternative and easy-to-reach medium that is striking and adherent for the young adult population, considering that video games have demonstrated promising results in several digital therapy applications. A study of 30 participants is carried out randomly, where group A used the proposed tool, and group B listened to a particular song, which has been shown to have therapeutic effects. With the application of biofeedback (which was made through an adapted controller for video games), supported tools of psychological treatment (such as ABMT, ATT, exposure to specific colors, and music) and measurement, and personalized questionnaires, a statistical analysis of the results compared in both groups was carried out, and it was concluded that the video game has a statistical significance equal to the song used in group B, resulting in comparable effectiveness in the proposed tool as a complementary element of help for anxiety. This method obtained promising results for its application in therapies for anxiety, however, in subsequent studies, it will be necessary to investigate how much higher the level of effectiveness is regarding to the song, as well as the possible scope that it may have for its general use.

Keywords: Digital Therapy; Biofeedback; Serious Video Games

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