A Novel Video Game Feature for Psychological Diagnosis of Generalized Anxiety Disorder in Adolescence

AlQahtani, Rasha (School: Riyadh School for Boys and Girls)

The number of youths affected with mental health disorders has increased throughout the years. 41% of adolescents with anxiety do not have access to mental health services, so it is important to develop innovative methods to efficiently diagnose and help those who do not have accesses to such services. The classical methods for conducting mental health assessment are challenging, with difficulties such as the high cost, the reluctance toward specialists and societal stigma. This research aims to overcome these challenges through embedding the mental health assessment tools inside an interactive environment via the creation of a novel, accessible, low-cost, and attractive game feature that can diagnose generalized anxiety disorder. In particular, the assessment is embedded as a dialog that includes decisions throughout the game to help gather the necessary data for accurate diagnosis. A community-based survey was conducted with 543 participants between the ages of 14-19. According to the results, adolescents do have a reluctance to specialist's diagnosis. 79.7% of them want to get diagnosed, but only 5.3% of them want to be diagnosed by a specialist. This suggests that adolescent's reluctance is caused by the way it is performed. Also, a blind diagnostic trial was performed on 35 adolescents. Results showed that the proposed game feature diagnosis is statistically similar to that of the standard scale diagnoses, with a p-value of 0.05527619. This research shows that diagnosing with this method may give accurate and credible diagnosing results, which will reduce health care costs and provide better societal awareness.

Awards Won:
Third Award of $1,000