NEUROBIOLOGICAL FINDINGS ASSOCIATED WITH INTERNET ADDICTION: A LITERATURE REVIEW

R.E. Pezoa-Jares, I.L. Espinoza-Luna

National Institute of Psychiatry 'Ramon de la Fuente', Mexico City, Mexico

Introduction: Internet addiction (IA) is increasingly becoming a mental health problem in some countries, and its importance has been reflected in the proposal to include it on the upcoming DSM-5. Although IA was described more than 15 years ago, controversy still emerges regarding its existence and classification. Recent studies have shown response to pharmacologic agents in individuals suffering from IA, suggesting a biological substrate. In the last years, studies have shown neurobiological variables to be associated with IA.

Objectives: Perform a literature review in search of studies that associate IA with neurobiological variables.

Aims: Summarize current knowledge about the neurobiological basis of IA.

Methods: We conducted a literature review of empirical research articles from PUBMED, EBSCO and Web of Science, using the keywords *Internet addiction, genetics, MRI, EEG, event-related potentials, neurobiology*. Articles published from January 2007 to May 2012 were selected on the basis of relevant information contained in the title and/or abstract.

Results: We found 26 studies that associated IA with different neurobiological findings. Studies variables and results are summarized in a table format.

Conclusions: Recent studies suggest a neurobiological component for IA. Anatomical and functional changes, genetic polymorphisms and impairment of neurotransmitter systems have been found in brains of individuals with IA. The reviewed studies did not evaluate causality. Understanding the neurobiological underpinnings of IA could help dilucidate subjects at risk of having this entity, determine severity of disease, or lead to development of therapeutic alternatives.