Internet Gaming Disorder: a review on etiological factors, psychiatric comorbidity and clinical approach

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Introduction
Internet Gaming Disorder (IGD) and Gaming Disorder are included in section III of the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), as well as in the 11th edition of the International Classification of Diseases (CID-11), thus reflecting their increasing importance as a significant mental health concern (1,2). This should be accompanied by the raising of awareness on behalf of health community services regarding this condition, including etiology, psychiatric comorbidities and clinical management.

Etiology

- Videogame structural characteristics
  - Massively Multiplayer Online games > Shooters > Multiplayer Online Battle Arena games > Real-Time strategy games
  - Online Videogames that don’t allow the user to pause the game: more addictive than offline single player games

- Individual characteristics
  - Novelty seeking
  - Avoidant personality
  - Cluster B personality
  - Lower self-esteem
  - Higher rates of impulsivity
  - Difficulties in emotional regulation
  - (> emotion suppression and < cognitive reappraisal)

- Motivation
  - The need to belong to a group (even if it is a “virtual” one)
  - Using videogames as a way to run from problems
  - FOMO (Fear of Missing Out): desire to stay continually connected with what others are doing

- Sociocultural context
  - Family conflicts
  - Parents with psychiatric disorder
  - History of physical abuse
  - Insecure attachment patterns
  - Low school performance
  - Uninvolved parenting

Psychiatric comorbidity

- Depressive Disorders
  - The most frequent comorbidity
  - Patients with ADHD: 13% have IGD

- ADHD

- Autism Spectrum Disorder

- Bipolar Disease

- Alcohol abuse

- OCD

- Anxiety Disorders

- Alexitimia

- Trauma

- Adolescents who experienced sexual abuse: 44% have IGD

Treatment

- There are no randomized trials showing effectiveness of pharmacological and nonpharmacological approaches

  - Cognitive-Based Treatment (CBT):
    - CBT for 6 months in patients with IGD: reduction of cognitive distortions and symptoms
    - Self Discovery Camp Treatment (9 days without electronic devices + CBT): short and long term improvement

  - Emotional Regulation Techniques
    - Reduction of anxiety and depressive symptoms
    - Reduction of IGD symptoms

  - Bupropion
    - Positive effects on nicotine and cocaine addiction and gambling disorder
    - Patients with IGD: reduction of craving and time spent playing videogames after 6 month treatment with Bupropion

  - Specialized Clinical Centres
    - Promotion of complete abstinence
    - Family-oriented approaches
    - Social Competence Training

Conclusion
Although universal recognition of IGD as a mental health disease isn’t still widely accepted, efforts have been made to identify etiological factors, possible psychiatric comorbidities and potential beneficial treatments. Research regarding this thematic should continue to be performed in order to allow clinicians to better manage patients with IGD.