INTERNET GAMING DISORDER

A Guide to “Video Game Addiction”

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Internet Gaming Disorder (IGD) as defined by the DSM-V:

Repetitive use of Internet-based games, often with other players, that leads to significant issues with functioning. Five of the following criteria must be met within one year:
IGD CRITERIA

- Preoccupation or obsession with Internet games.
- Withdrawal symptoms when not playing Internet games.
- A build-up of tolerance—more time needs to be spent playing the games.
- The person has tried to stop or curb playing Internet games, but has failed to do so.
- The person has had a loss of interest in other life activities, such as hobbies.
- A person has had continued overuse of Internet games even with the knowledge of how much they impact a person’s life.
- The person lied to others about his or her Internet game usage.
- The person uses Internet games to relieve anxiety or guilt—it’s a way to escape.
- The person has lost or put at risk an opportunity or relationship because of Internet games.
HAZARDOUS GAMING DISORDER

- Hazardous Gaming Disorder was added to the ICD-11 by the World Health Organization in 2018.
- It is defined as “a pattern of gaming behavior ("digital-gaming" or "video-gaming") characterized by impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences.”
- The decision to include this in the ICD-11 by the WHO came after consulting 66 professionals in 25 countries over the past few years. These professionals were chosen as experts in their respective fields including: from psychiatry, clinical psychology, internal medicine, family practice, child study, epidemiology, neurobiology, and public health (King, 2019).
TYPES OF GAMES

- Mobile Online Battle Arena
- League of Legends (MOBA)
  - 100 Million Players/Month
  - Toxic Community (Tyler)
  - Steps in the right Direction
- Defense of the Ancients (MOBA)
MASSIVE MULTIPLAYER ONLINE ROLEPLAYING GAME

World Of Warcraft

(MMORPG)

Deaths Associated with WoW:

- 24 Year Old Wu Tai from Shanghai
- Rebeca Christie From New Mexico
- HBO Documentary Love Child

Everquest (MMORPG)
OPEN WORLD
ROLEPLAYING GAME

Skyrim (OWRPG)

The Witcher (OWRPG)
FIRST PERSON SHOOTERS

Call of Duty (FPS)

Halo (FPS)
MOBILE GAMES

Angry Birds
Clash of Clans
Candy Crush

https://www.youtube.com/watch?v=4Vjyhu9L2Sg
WHAT MAKES THESE GAMES SO ADDICTING?

- Admiration for prowess
- Role playing (fantasy)
- Endless play, real time
- No pause button
- Peer driven; pressure to play
- Time Intensive
- Challenging, stimulating, fun
- Interesting storylines, graphics, and music
REWARDING ASPECTS OF GAMING

- Intermittent Reinforcement
- Social Reinforcement (competition, cooperation, social standing, friendships, community)
- Sexual/Romantic stimulation
- Fantasy Persona (sexy, God-like, etc)
- Disinhibition through anonymity
- Intellectual stimulation/challenge/sense of accomplishment/fun
SO HOW DO WE DETERMINE ADDICTION?
GAMING ADDICTION IS DETERMINED SIMILARLY TO BIOLOGICAL ADDICTION

- Salience—This occurs when online gaming becomes the most important activity in the person’s life and dominates their thinking (preoccupations and cognitive distortions), feelings (cravings) and behavior (deterioration of functioning). For instance, even if the person is not actually gaming online they will be thinking about the next time that they will be.

- Mood modification—This refers to the emotions that people report as a result of engaging in online gaming and can be seen as a coping strategy (i.e. they experience an “buzz” or a “high” from getting ‘their fix’ of playing or even a tranquilizing feel of “escape” or “numbing”).
- **Tolerance**—This is the process where increasing amounts of online gaming are required to achieve the former mood modifying effects. This basically means that for someone engaged in online gaming, they gradually build up the amount of the time they spend online engaged in the behavior.

- **Withdrawal symptoms**—These are the unpleasant feeling states and/or physical effects that occur when online gaming is discontinued or suddenly reduced (e.g., the shakes, moodiness, irritability, etc.).
Conflict—This refers to the conflicts between the gamer and those around them (interpersonal conflict), conflicts with other activities (job, schoolwork, social life, hobbies and interests) or from within the individual themselves (feelings of loss of control) which are concerned with spending too much time engaged in online gaming.

Relapse—This is the tendency for repeated reversions to earlier patterns of online gaming to recur and for even the most extreme patterns typical of excessive online gaming be quickly restored after periods of abstinence or control. (Griffith, 2008)
The **IGD-20 Test** was the first standardized psychometric tool to assess Internet Gaming Disorder (IGD) according to the nine Internet Gaming Disorder (IGD) criteria as suggested by the American Psychiatric Association.

The **IGD-20 Test** has a total of 20 questions and tests for IGD according to the six criteria well-established in behavioral addictions: ‘Salience’, ‘Mood Modification’, ‘Tolerance’, and ‘Withdrawal Symptoms’, ‘Conflict’, and ‘Relapse’.

The **IGD-20 Test** has also been shown to be reliable according to several indicators of reliability including: Construct validity (i.e., factorial, convergent); (ii) criterion-related validity; (iii) concurrent validity, (iv) cross-cultural validity. (Griffiths, 2010)
IGD S9-SF

- A test to determine severity of addiction once IGD has been established
- Test is scored by using a 5 point Likert scale. Scores range from 9-45 with higher scores being indicative of higher severity of the disorder
- Scores that are 36 and higher indicate extreme severity of symptoms (Lemmens et al. 2009)
CASE STUDIES

David, 21

- Is this person Addicted?

Jeremy, 38

- Is this person addicted?
**CONTEXT IN IGD**

**David, 21**
- Minimal detrimental effects to life or functioning
- Once securing employment was able to reduce hours played
- Took socializing in game into reality

In Short: Dave's life allowed for excessive gaming

**Jeremy, 38**
- Unable to be reliable at work due to excessive gaming
- Unable to reduce playing time, in fact playing time increased as a result of neg. consequences
- Unable to relieve stress except for gaming
- In Short: Jeremy lacked ability to function with the amount he was gaming
WHAT ARE NEGATIVE CONSEQUENCES TO EXCESSIVE GAMING?
NEGATIVE CONSEQUENCES

- Decrease in Limbic Resonance (capacity to develop and feel empathy)
- Effective Communication of Thoughts, Feelings and Needs
- External Boundaries
- Learning to Read Social Cues
- Handling Conflict
- Ability to self soothe
- Aggression (cyber bullying, class disruption, etc.)

- Lack of exercise, leading to poor posture, underdevelopment of musculature, weight problems, lack of desire for exercise
- Poor nutrition
- Eye, back and tendon strains
- Lack of fine motor skills leading to being developmentally delayed
- Obesity/Sedentary Lifestyle
- Sleep deprivation
GAMING ADDICTION AND GAMBLING
MICRO TRANSACTIONS

- Micro transactions in games allow players to spend real currency in order to obtain additional content such as power ups, new character costumes, and the ability to clear levels with minimal effort.
- These transactions are found in many games but are most common in mobile games that are initially free to play but eventually require additional items to continue to play.
- In 2017 the game company Blizzard reports it made more than 4 billion dollars in micro transactions alone.

(King, 2018)
LOOT BOXES

- Loot Boxes are in game reward systems that can be purchased with real currency and provide a randomized reward
- These loot boxes have been psychologically related to slot machines (low risk of reward/no skill required)
- Loot boxes have been outlawed in certain countries (Such as Belgium and The Netherlands) as it has been determined it is a legal form of predatory gambling for minors. They currently do not meet the US legal definition of gambling (Drummond, 2018)
- Opskins and the resale of loot box items
GAMING ADDICTION AND THE BRAIN

- Atrophy of grey matter in frontal lobe (impulse control)
- Atrophy of Insula (Empathy and ability to read social cues)
- Reduced Cortical Thickness (Possible cognitive impairments)
RECOMMENDED BY THE AMERICAN ACADEMY OF PEDIATRICS

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<th>Developmental Age</th>
<th>How Much?</th>
<th>Non-violent TV</th>
<th>Hand-held devices</th>
<th>Non-violent video games</th>
<th>Violent video games</th>
<th>Online violent video games</th>
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<td>0-2 years</td>
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<tr>
<td>13-18 years</td>
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<td>limit to 30 minutes/day</td>
<td>never</td>
<td>never</td>
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FREQUENT CO-OCCURRING DISORDERS

- Asperger’s Syndrome (Autism Spectrum Disorder)
- ADD/ADHD
- Depression
- Anxiety
- PTSD
- Other Addictions
- Bipolar Disorder
“A Harris poll surveyed a randomly selected sample of 1,178 American youth ages 8 to 18. About 8% of video-game players in this sample exhibited pathological patterns of play. Several indicators documented convergent and divergent validity of the results: Pathological gamers spent twice as much time playing as nonpathological gamers and received poorer grades in school; pathological gaming also showed comorbidity with attention problems” (Gentile 2009)
POSITIVES OF VIDEO GAMES

- Increased motor controls
- Intellectual Stimulation
- Possible prosocial behaviors

“The rise of multi-player experiences online has given way to a new form of socializing in which players work together to solve problems. But studies have shown games can also be the catalyst for friends to gather in person: roughly 70 percent of all players play with friends at least some of the time. Multiplayer games become virtual social communities, where decisions need to be made quickly about whom to trust or reject and how to lead a group. People who play video games, even if they are violent, that encourage cooperation are more likely to be helpful to others while gaming than those who play the same games competitively” (Granic, 2011)
WHAT IS CONTRIBUTING TO THIS EPIDEMIC?
THE IGD EPIDEMIC

Societal Contributions

- Lack of Official Recognition of IGD
- Pressure from those industries that make money from those who are addicted to various aspects of the Internet
- Lack of affordable, available after-school activities
- Loss of family time due to overworked parents, single parents
- Lack of an mental health system with practitioners who understand how to treat IGD
- A culture that idealizes all things digital

Challenges for Clinicians

- Lack of training in addiction treatment in general and for behavioral addictions in particular
- Lack of resources, like 12-steps for IGD
- Our own societal norms: we are immersed in our culture’s attitudes about digital media, we are users of it, and we may think it’s extremely beneficial in our lives
TREATMENT

- Become familiar with the culture in order to validate
- Behavioral Interventions
- Inpatient Facilities (Restart Life)
- Clinical Trials of Bupropion
REFERENCES