Technological Addictions: The New Frontier in Addiction Medicine

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Clinical Updates Track
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Outline

1. The Lay of the Land
2. Internet Gaming
3. Cybersex
4. Assessment and Diagnosis
5. Treatments
THE LAY OF THE LAND
Behavioral Addictions

Gambling
Sex
Technology
Food
Shopping
Tanning
Exercise
Love
Work

Technological Addictions

Internet Gaming
Cybersex
Social Media
Internet Gambling
Infobesity
Emailing and Texting
Online Auctions & Shopping
Social Media

✔ The Self v. the Selfie

✔ FOMO v. JOMO
  - Fear or Joy
  - Of
  - Missing
  - Out

Sports Betting

Infobesity

✔ Internet Surfing:
  Aimless web browsing for extended periods

✔ Information Overload:
  Difficulty understanding a topic or making decisions due to too much information

Janssen R, Information overload: why some people seem to suffer more than others, Nordic Conference on Human-Computer Interaction, 2006.
Emailing and Texting

**EMAIL VS. TEXTING**

- **Average Number Sent Per Day**
  - Email: 269 billion
  - Texting: 22 billion

- **Open Rate**
  - Email: 20%
  - Texting: 98%

- **Response Rate**
  - Email: 6%
  - Texting: 45%

- **Response Time**
  - Email: 90 minutes
  - Texting: 90 seconds
When I shop, the world gets better, and the world is better, but then it's not, and I need to do it again.

- Rebecca Bloomwood

Film: Confessions of a Shopaholic, 2009.
INTERNET GAMING
Careers, Friends, Popularity
Kids and Video Games

- 61% play video games on a given day.
- Average Time: 2 hours 13 minutes
- Boys > Girls
- 14% boys, 5% girls play 4 to 10 hours/day.
- Do parents limit kids’ screen time?
  - 94% parents say YES
  - 48% report a “constant battle”
  - 72% youth say NO
  - Those with no rules play twice as much

Levounis P and Sherer J, The Technological Addictions, 2022
Positives

✔ Eye-Hand Coordination
✔ Multi-tasking
✔ Vision
✔ Visual Attention
✔ Visual Tracking
✔ Mental Rotation
Negatives

✔ Academics
✔ Exercise
✔ Sleep
✔ Not Hanging Out with Friends
✔ Feeling Lonely

X Do they cause violence? No.

The Flow Zone

Arousal and Control

Based on the work of Mihaly Csikszentmihalyi.
3

CYBERSEX
An All-Inclusive Term

Online Pornography
Online Dating
Sex Chats
Sex Webcams
Teledildonics
Online Pornography
The Triple A Model

Accessibility
Affordability
Anonymity
Online Dating
Dating on Sites & Apps

U.S. adults: 30%

- Men: 32%
- Women: 28%

- Ages 18-29: 48%
- 30-49: 38%
- 50-64: 19%
- 65+: 13%

- White: 29%
- Black: 31%
- Hispanic: 28%

- Straight: 28%
- LGB: 55%
Love and sex, both virtual and real, is only a click or a swipe away.

- Variable-ratio reinforcement
ASSESSMENT AND DIAGNOSIS
HOW DO I KNOW MY PATIENT IS ADDICTED TO TECHNOLOGY?
Same as All Addiction

- Tolerance and Withdrawal
- Internal Concerns
- External Consequences
Physiology

✔️ Tolerance
  - Requiring more use to get the same satisfaction

✔️ Withdrawal
  - Anger and irritability
  - Depression and despair
  - Tantrums in children
Internal Concerns

✔ Preoccupation
  - Beyond what is acceptable for a patient's age, social circle, and profession

✔ Inability to cut down despite desire and efforts

✔ Attempt to relieve negative moods
External Consequences

- Giving up activities
- Jeopardizing relationships
- Losing a job
- Deceiving loved ones
### Bergen Social Media Addiction Scale

<table>
<thead>
<tr>
<th></th>
<th>Very Rarely</th>
<th>Rarely</th>
<th>At Times</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>You spend a lot of time thinking about social media or planning how to use it.</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>You feel an urge to use social media more and more.</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>You use social media in order to forget about personal problems.</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>You have tried to cut down on the use of social media without success.</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>You become restless or troubled if you are prohibited from using social media.</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
</tr>
<tr>
<td>You use social media so much that it has had a negative impact on your job/studies.</td>
<td>☐</td>
<td>☐</td>
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</tr>
</tbody>
</table>

5 TREATMENTS
WHAT CAN I DO ABOUT IT?
Psychotherapy

✔ Cognitive Behavioral Therapy
✔ Motivational Interviewing

Medications

✔ We have no approved medications for any Technological Addiction.

✔ Treat co-occurring psychiatric disorders.

Levounis P and Sherer J. The Technological Addictions, 2022.
Arousal and Control

Based on the work of Mihaly Csikszentmihalyi.
A Tech Addiction as an Arousal/Impulsivity Problem

Opioid Antagonists

- Consider naltrexone (or nalmefene).
- Decrease dopamine function by blocking opioid receptors.
- Reduce the “high.”

Please note: No medication has been approved by the Food and Drug Administration for the treatment of any technological addiction.
A Tech Addiction as a Control/Compulsivity Problem

Serotonin Enhancers

- Consider Selective Serotonin Reuptake Inhibitors
- Increase serotonin function by blocking serotonin reuptake receptors.
- Decrease obsessiveness.

Please note: No medication has been approved by the Food and Drug Administration for the treatment of any technological addiction.
And Back to Neurobiology

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THANK YOU

NJMS.Rutgers.edu/Psychiatry