

# The landscape of behavioural addictions: Historical considerations, conceptualisation, and challenges

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*Congrès International d'Addictologie de l'ALBATROS*

9-11 June 2026, Paris, France



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# A little history

## Not very long time ago ...

- Addictions = alcohol and other substance-related addictive disorders (dependence, abuse, intoxication) (DSM/ICD)
- Non-substance-related addictive disorders were considered impulse control disorders (e.g., gambling) or not classified at all
- Apart from gambling not much research was going on regarding non-substance-related disorders with addiction like features
- Conceptual models were limited to substance use disorder
- Addiction journals as well as addiction handbooks were focusing on smoking, alcohol use, and substance use-related issues (almost) exclusively



## But ... it's not that simple ...

- There are several behaviours that were described, studied, and conceptualised, already decades ago as behavioural addictions or a disorder with addiction-like features
- Naturalistic descriptions, often based on lived experience
- Some of them were either classified as obsessive-compulsive spectrum disorders or impulse control disorder OR
- Not officially recognised, BUT characterised by obsessive-compulsive and impulsive symptoms



# Gambling in the DSM

“... chronic  
resist impu

## 1980: DSM-III

- Gambling as a disorder (Pathological Gambling)
- Disorders of Impulse Control Not Elsewhere Classified (together with Kleptomania, Pyromania, Intermittent Explosive Disorder)
- Criterion B: damage inventory

Rosenthal, 2020. Int Gambling Studies

## 1994: DSM-IV™

- Pathological Gambling
- Impulse-Control Disorders Not Elsewhere Classified
- Preoccupation
- Addiction-like criteria (tolerance, withdrawal, loss of control, coping), and
- Gambling-specific symptoms

APA, 1994.

## Diagnostic criteria for 312.31 Pathological Gambling

- A. Persistent and recurrent maladaptive gambling behavior as indicated by five (or more) of the following:
- (1) is preoccupied with gambling (e.g., preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)
  - (2) needs to gamble with increasing amounts of money in order to achieve the desired excitement
  - (3) has repeated unsuccessful efforts to control, cut back, or stop gambling
  - (4) is restless or irritable when attempting to cut down or stop gambling
  - (5) gambles as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)
  - (6) after losing money gambling, often returns another day to get even (“chasing” one’s losses)
  - (7) lies to family members, therapist, or others to conceal the extent of involvement with gambling
  - (8) has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling
  - (9) has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling
  - (10) relies on others to provide money to relieve a desperate financial situation caused by gambling
- B. The gambling behavior is not better accounted for by a Manic Episode.



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# 2013: DSM-5

- Name: Gambling Disorder
- Categorised as a Non-Substance-Related Addictive Disorder
- No significant changes in the criteria (other than removing the one on “illegal acts”)
- Spectrum approach: mild–moderate – severe

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## Substance-Related and Addictive Disorders (481)

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### Non-Substance-Related Disorders

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#### Gambling Disorder

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##### Diagnostic Criteria

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**312.31 (F63.0)**

- A. Persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress, as indicated by the individual exhibiting four (or more) of the following in a 12-month period:
1. Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
  2. Is restless or irritable when attempting to cut down or stop gambling.
  3. Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
  4. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling experiences, handicapping or planning the next venture, thinking of ways to get money with which to gamble).
  5. Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed).
  6. After losing money gambling, often returns another day to get even (“chasing” one’s losses).
  7. Lies to conceal the extent of involvement with gambling.
  8. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling.
  9. Relies on others to provide money to relieve desperate financial situations caused by gambling.
- B. The gambling behavior is not better explained by a manic episode.

*Specify current severity:*

**Mild:** 4–5 criteria met.

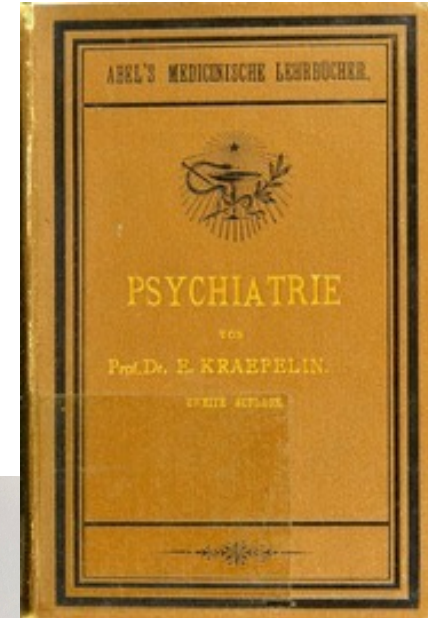
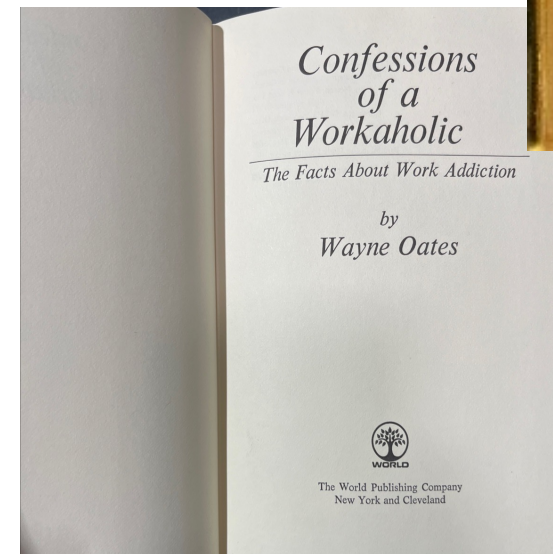
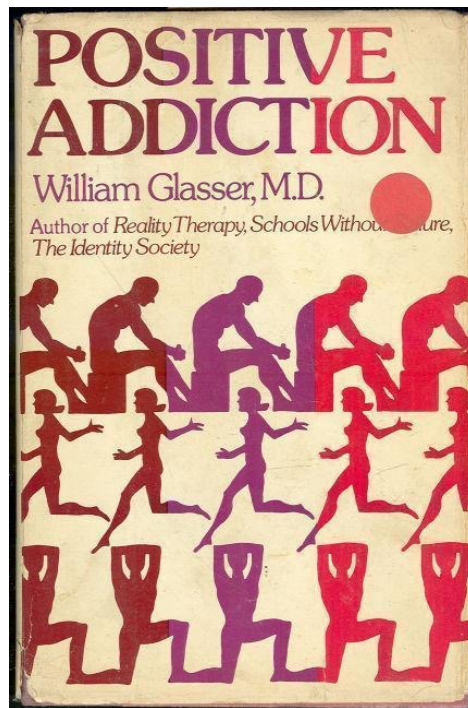
**Moderate:** 6–7 criteria met.

**Severe:** 8–9 criteria met.

APA, 2013.

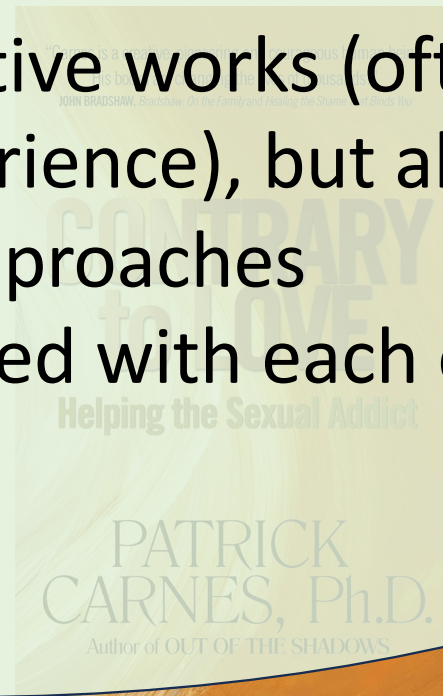
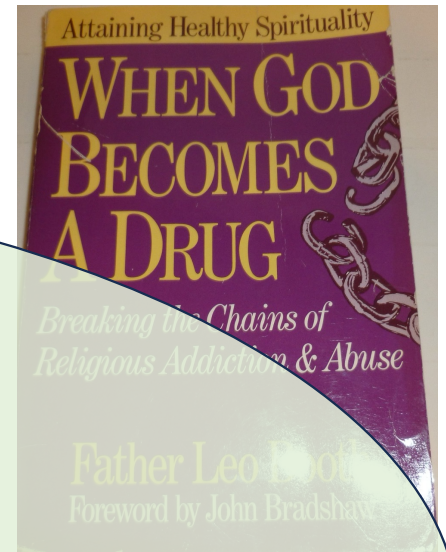
# Other (potential) behavioural addictions

- Work addiction (workaholism) (Oates, 1971)
- Compulsive buying-shopping behaviour (oniomania [Kraepelin, 1915; Bleuler, 1924])
- Exercise addiction (obligatory exercise, compulsive exercise, abusive exercise) (positive addiction vs. negative addiction) (Glasser, 1976; Morgan, 1979)



# Other (potential) behavioural addictions

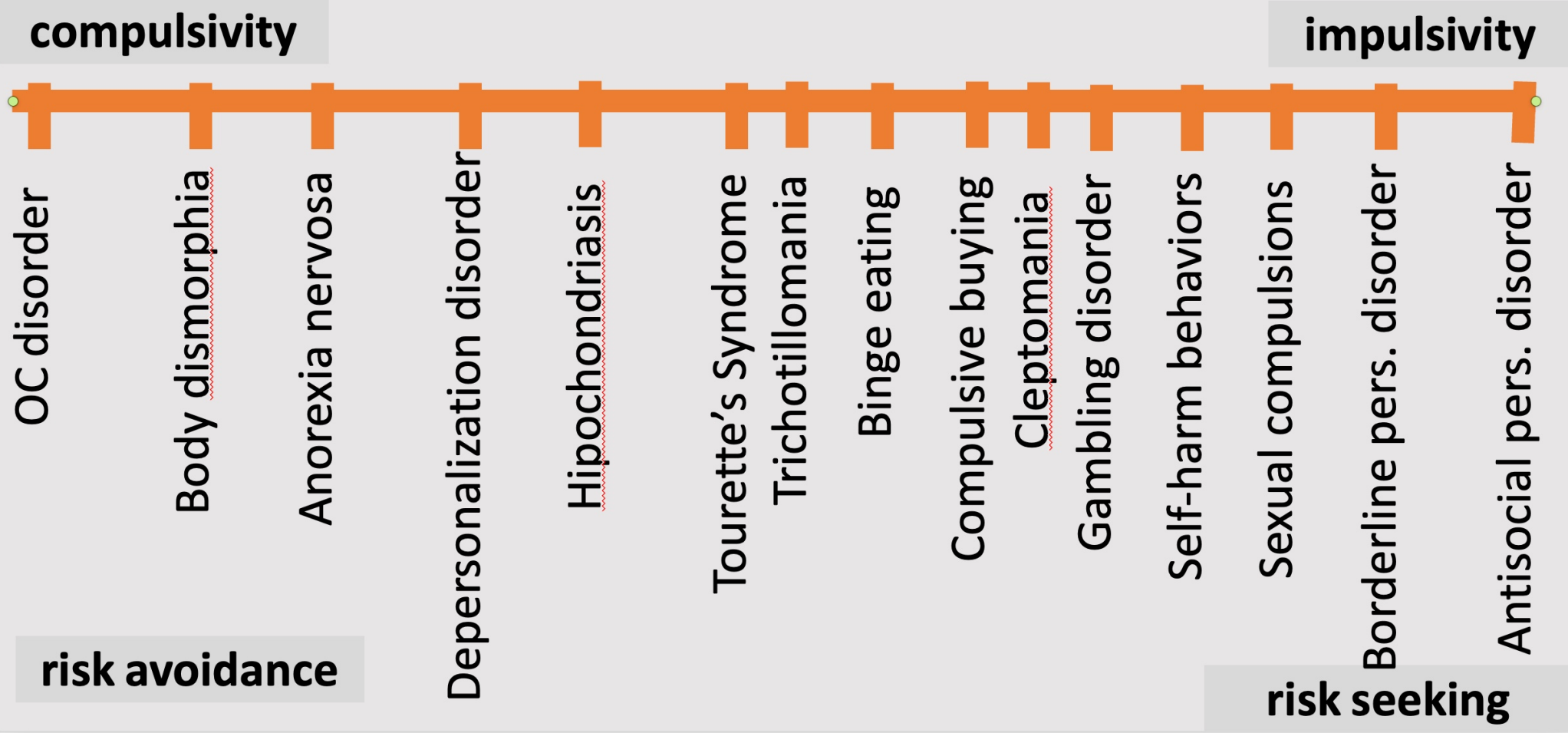
- Sex addiction, hypersexual behaviour (Carnes, 1989)
  - Dominantly descriptive works (often based on lived experience), but also,
  - Some theoretical approaches
  - (not necessarily linked with each other)
- Binge eating and other eating disorders
- Religious addiction (Booth, 1998)
- Hoarding



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„Obsessive-compulsive spectrum” disorders and their position on the OC spectrum (see Hollander & Wong, 1995)



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• Role  
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disor  
• Dopa  
(eatin

# Development and validation of the Reward Deficiency Syndrome Questionnaire (RDSQ-29)

Eszter Kótyuk<sup>1</sup>, Róbert Urbán<sup>1</sup>, Borbála Hende<sup>1,2</sup>, Mara Richman<sup>1</sup>, Anna Magi<sup>1,2</sup>, Orsolya Király<sup>1</sup>, Csaba Barta<sup>3</sup>, Mark D Griffiths<sup>4</sup>, Marc N Potenza<sup>5,6,7</sup>, Rajendra D Badgaiyan<sup>8</sup>, Kenneth Blum<sup>9</sup> and Zsolt Demetrovics<sup>1,10</sup> 



*Journal of Psychopharmacology*  
2022, Vol. 36(3) 409–422  
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- The role of the DRD2 gene (Comings and Blum, 2000)
- However, there's no psychological description of the phenomenon



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# Components model of behavioural addictions (Griffiths 1996 2005)

Addictive Behaviors 143 (2023) 107694

The six



Contents lists available at [ScienceDirect](#)

Addictive Behaviors

journal homepage: [www.elsevier.com/locate/addictbeh](http://www.elsevier.com/locate/addictbeh)



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Deconstructing the components model of addiction: an illustration through “addictive” use of social media



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# What has changed in and since the mid 90s?

# What has digitalisation changed?

Substance use

Gambling

(Computer  
games, TV)

(Pornography)

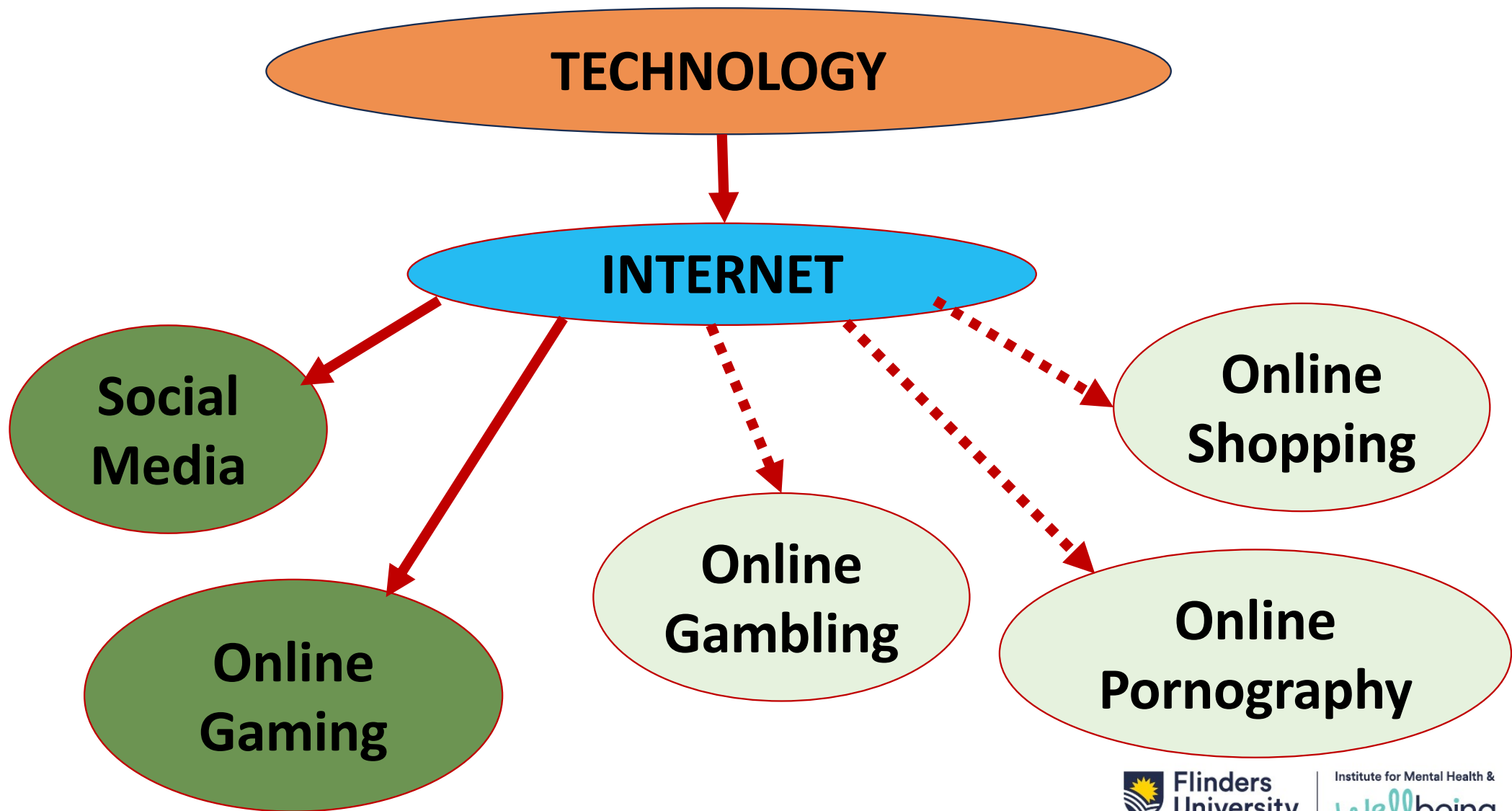
T E C H N O L O G Y D E V E L O P M E N T

Novel  
psychoactive  
substances  
(including new  
alcohol  
products)

Online  
gambling,  
interactive  
gambling  
(sports betting,  
etc.)

Technological  
addictions  
(gaming  
disorder,  
problematic  
social media  
use)

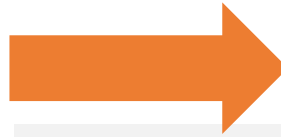
Pornography  
addiction,  
compulsive  
sexual  
behaviour  
disorder





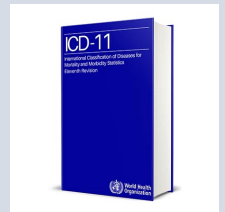
# DSM-IV / ICD-10

- “*Psychoactive Substance Use Disorders*” (DSM-IV; APA, 2000), and „*Mental and behavioural disorders due to psychoactive substance use*” (ICD-10; WHO, 1994)
- The diagnosis of *dependence* (and *abuse*) applies only to psychoactive substances
- All other addictive disorders – included in the diagnostic systems – are listed in other sections



# DSM-5 / ICD-11

- Substance-Related and Addictive Disorders (DSM-5)
  - 10 groups of drugs (alcohol; caffeine; cannabis; hallucinogens; inhalants; opioids; sedatives, hypnotics, or anxiolytics; stimulants; tobacco; other)
  - **Non-Substance-Related Disorders**
    - **Gambling Disorder**
  - **Section III** (Emerging Measures and Models)
    - **Internet Gaming Disorder**
- Disorders due to substance use or addictive behaviours (ICD-11)
  - Disorders due to substance use (18 substances)
  - **Disorders due to addictive behaviours**
    - **Gambling Disorder**
      - Gambling disorder, predominantly offline
      - Gambling disorder, predominantly online
    - **Gaming Disorder**
      - Gaming disorder, predominantly online
      - Gaming disorder, predominantly offline
      - Gaming disorder, unspecified



# Behavioural addictions in the diagnostic systems and beyond

## HETEROGENEOUS GROUP

### Disorders classified in the DSM-5

- Substance-Related *and Addictive Disorders*
- Obsessive-compulsive and related disorders
- Feeding and eating disorders
- Disruptive, impulse-control, and conduct disorders
- Paraphilic disorders

### Disorders not classified in the DSM-5



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### Disorders due to substance use or addictive behaviours

- *Gambling disorder*
- *Gaming disorder*

### Obsessive-compulsive and related disorders

- *Obsessive-compulsive dis.*
- *Body dysmorphic disorder*
- *Hypochondriasis*
- *Hoarding disorder*
- *Body-focused repetitive behaviour disorders*
  - *Trichotillomania*
  - *Excoriation disorder*

### Feeding or eating disorders

- *Anorexia nervosa*
- *Bulimia nervosa*
- *Binge eating disorder*

### Impulse control disorders

- *Intermittent explosive disorder*
- *Pyromania*
- *Kleptomania*
- *Compulsive sexual behaviour disorder*

### Paraphilic Disorders

- *Exhibitionistic disorder*
- *Voyeuristic disorder*
- *Pedophilic disorder*
- *Coercive sexual sadism disorder*
- *Frotteuristic disorder*
- *Fetishistic disorder*

### Not in the ICD-11

#### Eating behaviour

- *Orthorexia Nervosa*
- *Food Addiction*

#### Internet / Technology / Screen-based device use-related behaviours

- *Problematic use of the internet*
- *Problematic social media use*
- *Problematic smart/mobile phone use*
- *Streaming addiction*

#### Others

- *Exercise addiction*
- *Compulsive buying-shopping disorder*
- *Work addiction*
- *Pornography addiction*
- *Religious addictions*
- *(Co-dependency)*

# What makes (or doesn't make) these behaviours part of the same (addiction) spectrum?

Similar/overlapping ...

... symptomatology

... genetic factors

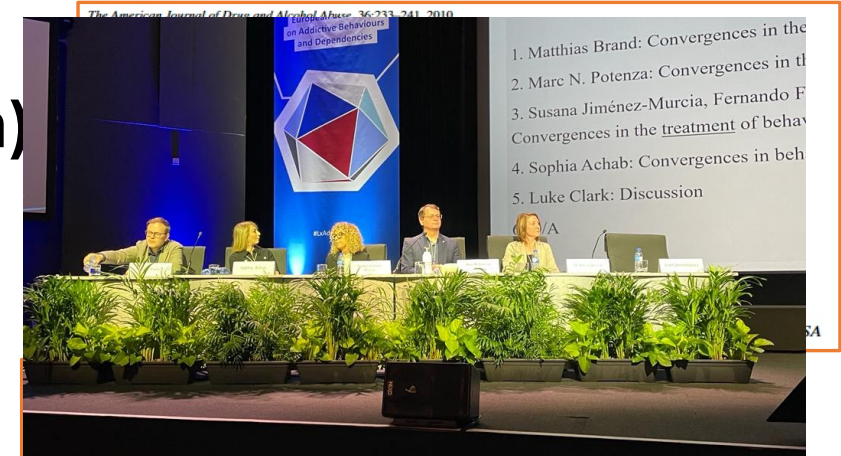
... neurobiological mechanisms

... psychological mechanisms

... (effective) pharmacological and psychotherapeutic interventions

• Integrative models

(Grant et al., 2010; Demetrovics & Griffiths, 2012; Brand et al., 2022)



AKADÉMIAI KIADÓ

Journal of Behavioral Addictions

11 (2022) 2, 15

Debate: Behavioral addictions in the ICD-11

doi: 10.1556/2006.2020.00035  
© 2020 The Author(s)

RUDOLF STARK<sup>9</sup>, DANIEL L. KING<sup>8</sup>, ANNA E. GOUDRIAAN<sup>9,10,11</sup>, KARL MANN<sup>12</sup>, PATRICK TROTZKE<sup>1,2</sup>, NAOMI A. FINEBERG<sup>13,14,15</sup>, SAMUEL R. CHAMBERLAIN<sup>16,17</sup>, SHANE W. KRAUS<sup>18</sup>, ELISA WEGMANN<sup>1</sup>, JOËL BILLIEUX<sup>19,20</sup> and MARC N. POTENZA<sup>21,22,23</sup>

# Symptomatology

# Alcohol Use Disorder (DSM-5)

A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. Alcohol is often taken in larger amounts or over a longer period than intended.
2. Persistent desire or unsuccessful efforts to cut down or control.
3. A great deal of time is spent on activities related to alcohol.
4. Craving or strong desire. (!)
5. Failure to fulfil major role obligations at work, school, or home.
6. Continued alcohol use despite negative consequences.
7. Giving up important social, occupational, or recreational activities.
8. Recurrent alcohol use in physically hazardous situations.
9. Alcohol use continues despite knowledge of problems.
10. Tolerance.
11. Withdrawal.

**305.00 (F10.10) Mild:** Presence of 2–3 symptoms.

**303.90 (F10.20) Moderate:** Presence of 4–5 symptoms.

**303.90 (F10.20) Severe:** Presence of 6 or more symptoms.

# Gambling Disorder (DSM-5)

Persistent and recurrent problematic gambling behaviour leading to clinically significant impairment or distress, as indicated by the individual exhibiting four (or more) of the following in a 12-month period:

1. A need to gamble with increasing amounts of money to achieve the desired excitement.
2. Restless or irritable when attempting to cut down or stop gambling
3. Repeated unsuccessful efforts to control, cut back, or stop gambling
4. Preoccupation
5. Often gambles when feeling distressed (helpless, guilty, anxious, depressed).
6. “Chasing” one’s losses.
7. Lies to conceal the extent of involvement with gambling.
8. Has jeopardised or lost a significant relationship, job, or career opportunity.
9. Relies on others financially.

**Mild:** 4–5 criteria met.

**Moderate:** 6–7 criteria met.

**Severe:** 8–9 criteria met.

# Internet Gaming Disorder (DSM-5, Section III.)

Persistent and recurrent use of the Internet to engage in games, often with other players, leading to clinically significant impairment or distress as indicated by five (or more) of the following in a 12-month period:

1. **Preoccupation** with internet games. (The individual thinks about previous gaming activity or anticipates playing the next game; Internet gaming becomes the dominant activity in daily life).
2. **Withdrawal** symptoms occur when gaming is taken away. (Typically irritability, anxiety, or sadness, but there are no physical signs of pharmacological withdrawal.)
3. **Tolerance**—the need to spend increasing amounts of time engaged in Internet games.
4. Unsuccessful attempts to **control** participation in games.
5. **Loss of interest** in previous hobbies and entertainment.
6. **Continued excessive use** of games despite knowledge of psychosocial problems.
7. Has **deceived** family members, therapists, or others regarding the amount of gaming.
8. Use of games to **escape or relieve a negative mood** (e.g., feelings of helplessness, guilt, anxiety).
9. Has **jeopardised or lost** a significant relationship, job, or educational or career opportunity because of participation in Internet games.

# Obsessive-Compulsive Disorder (DSM-5)

Presence of obsessions, compulsions, or both:

## *Obsessions*

1. Recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive, unwanted, and that in most individuals cause marked anxiety or distress.
2. The individual attempts to ignore or suppress such thoughts, urges, or images, or to neutralise them with some other thought or action.

## *Compulsions*

1. Repetitive behaviours or mental acts that the individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly.
2. The behaviours or mental acts are aimed at preventing or reducing anxiety or distress.



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# Trichotillomania (Hair-pulling disorder) (DSM-5)

- A. Recurrent pulling out of one's hair, resulting in hair loss.
- B. Repeated attempts to decrease or stop hair-pulling.
- C. The hair pulling causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The hair pulling or hair loss is not attributable to another medical condition (e.g., a dermatological condition).
- E. The hair pulling is not better explained by the symptoms of another mental disorder (e.g., attempts to improve a perceived defect or flaw in appearance in body dysmorphic disorder).



<b>Alcohol use disorder (DSM-5)</b>	<b>Component</b>	<b>IGD criteria</b>	<b>Gambling Disorder</b>	<b>Obsessive-Compulsive Disorder</b>	<b>Trichotillomania</b>
1. Often taken in larger amounts or over a longer period than it was intended.	<b>Increasing use</b>	<b>3</b>	<b>1</b>		
2. Persistent desire or unsuccessful efforts to cut down or control.	<b>Loss of control</b>	<b>4</b>	<b>3</b>	<b>A/2 (O), A/1 (C)</b>	<b>B</b>
3. A great deal of time is spent on activities related to alcohol.	<b>Time (Preoccupation)</b>	<b>1</b>	<b>4</b>	<b>A/1 (O)</b>	
4. Craving or strong desire.	<b>Craving (Preoccupation)</b>	<b>1</b>	<b>4</b>		
5. Failure to fulfil major role obligations at work, school, or home.	<b>Functional impairment</b>	<b>9</b>	<b>8</b>		<b>C</b>
6. Continued alcohol use despite negative consequences.	<b>Negative consequences</b>	<b>6</b>	<b>(9)</b>		<b>C</b>
7. Giving up important social, occupational, or recreational activities.	<b>Loss of interest</b>	<b>5</b>	<b>+</b>		
8. Recurrent alcohol use in physically hazardous situations.	<b>Hazardous situations</b>	<b>-</b>	<b>-</b>		
9. Alcohol use is continued despite knowledge of problems.	<b>Continued use</b>	<b>6</b>	<b>+</b>		
10. Tolerance.	<b>Tolerance</b>	<b>3</b>	<b>1</b>		
11. Withdrawal.	<b>Withdrawal</b>	<b>2</b>	<b>2</b>		
	<b>Coping (Escapism)</b>	<b>8</b>	<b>5</b>	<b>A/2 (C)</b>	
	<b>“Chasing” one’s losses</b>	<b>-</b>	<b>6</b>		
	<b>Concealment</b>	<b>7</b>	<b>7</b>		

# Convergence of behavioural addictions

**Aim:** Identify factors associated with gambling disorder and examine their involvement in candidate behavioural addictions.

**Methods:** Using gambling disorder as a benchmark, we identified 75 factors (in 246 studies) grouped into nine categories to compare gambling disorder with

- alcohol use disorder (AUD) (as a standard substance use disorder)
- gaming disorder
- compulsive sexual behaviour disorder (CSBD)
- binge eating disorder (BED)
- compulsive buying–shopping disorder (CBSD)
- exercise addiction
- work addiction.

## **Outcomes measures:**

- *Data availability*
- *Unweighted concordance:* to present the direction of the results
- *Weighted concordance:* also considers the level of evidence

Vansteene, C., Poupon, D., Czakó, A., Kurimay, T., Mangat, H. S., Ngetich, R. K., Demetrovics, Z., Gorwood, P. (2026) under review

# Results

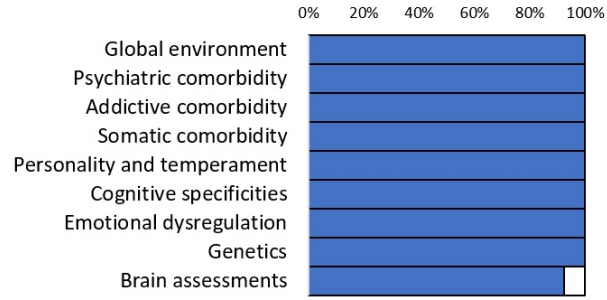
Overall data availability, level of unweighted concordance and level of weighted concordance in AUD and candidate behavioural addictions compared to gambling disorder

	<b>Alcohol Use Disorder</b>	<b>Gaming disorder</b>	<b>Binge Eating Disorder</b>	<b>Compulsive Sexual Behaviour Disorder</b>	<b>Work addiction</b>	<b>Exercise addiction</b>	<b>Compulsive buying–shopping disorder</b>
Data availability	100.0%	69.3%	54.7%	48.0%	20.0%	20.0%	22.7%
<b>Unweighted concordance</b>							
<b>Congruent</b>	<b>92.2%</b>	<b>98.9%</b>	<b>84.9%</b>	<b>89.7%</b>	<b>70.7%</b>	<b>66.7%</b>	<b>73.8%</b>
Incongruent	0.0%	0.0%	4.0%	0.0%	3.3%	4.8%	6.3%
Inconclusive	7.8%	1.1%	11.1%	10.3%	26.0%	28.6%	20.0%
<b>Weighted concordance</b>							
Congruent	119.3%	85.2%	75.2%	50.1%	84.5%	60.2%	45.2%
Incongruent	0.0%	0.0%	1.9%	0.0%	3.3%	3.9%	6.3%
Inconclusive	9.9%	0.7%	7.7%	4.9%	24.5%	22.9%	14.1%

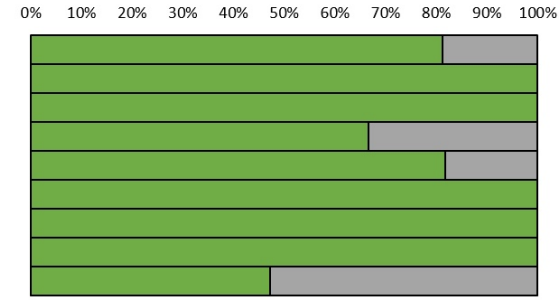


**A. Data availability**

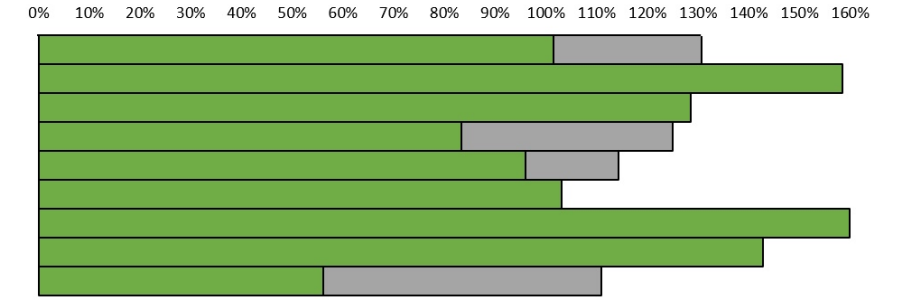
**Alcohol use disorder**



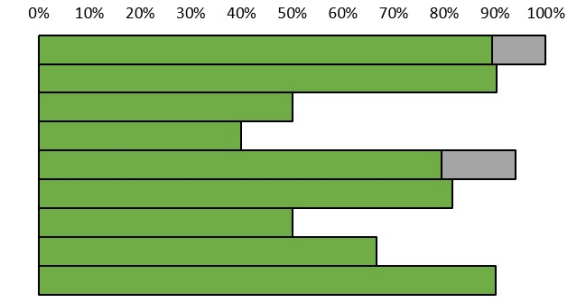
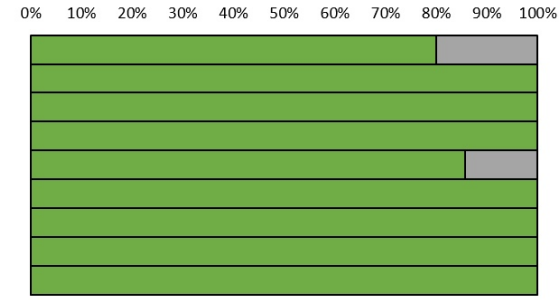
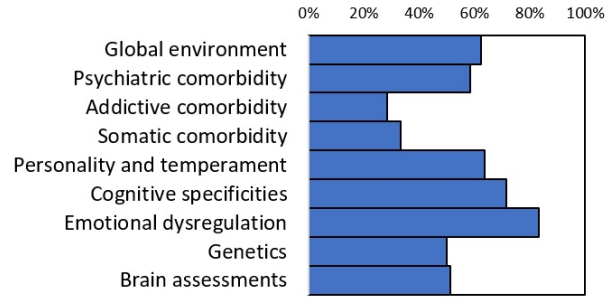
**B. Unweighted concordance**



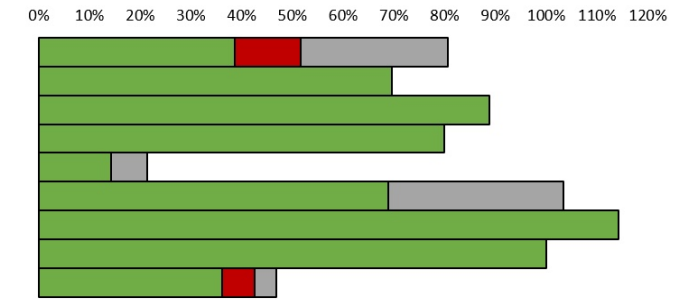
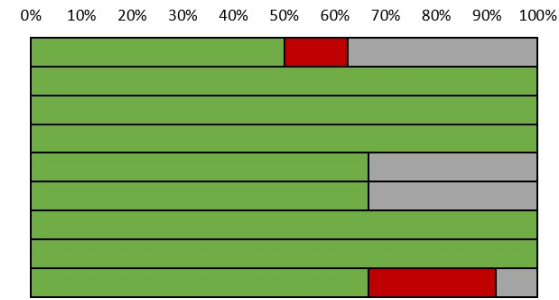
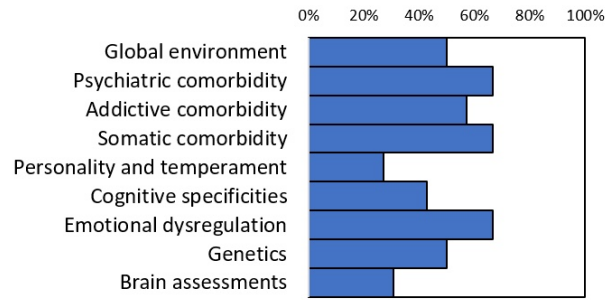
**C. Weighted concordance**



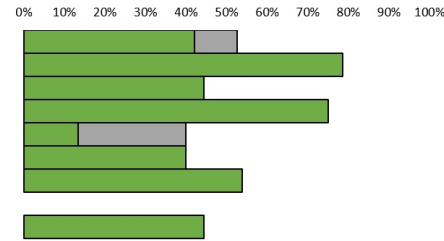
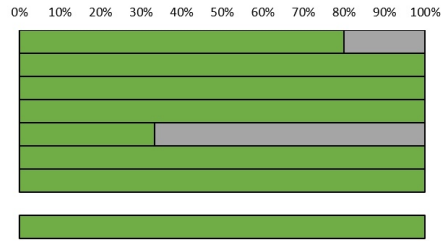
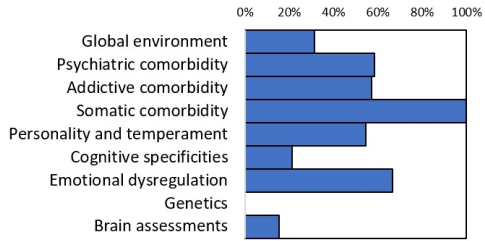
**Gaming disorder**



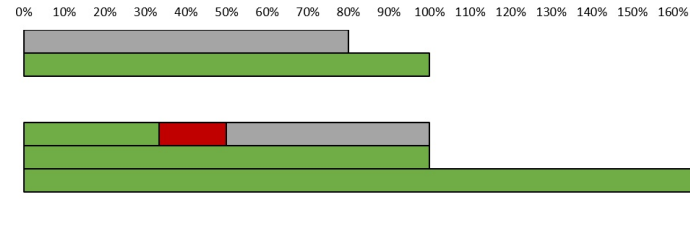
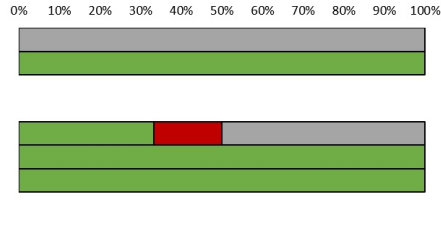
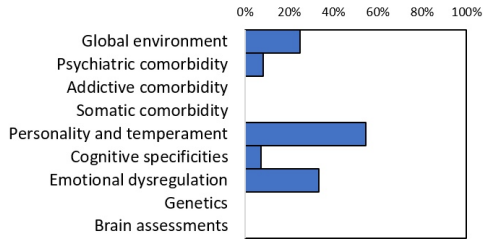
**Binge eating disorder**



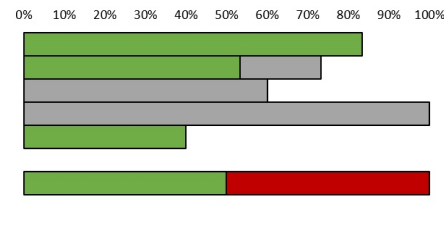
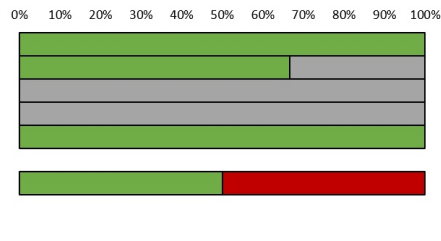
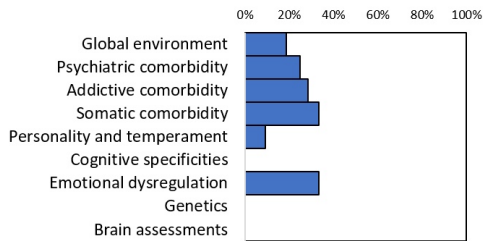
### Compulsive sexual behaviour disorder



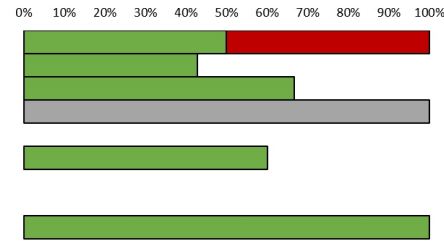
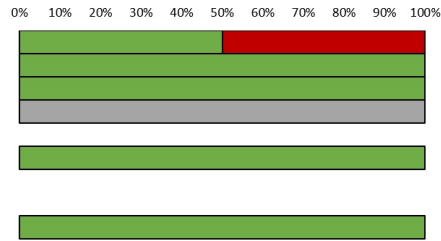
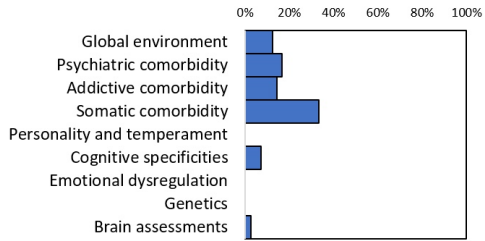
### Work addiction



### Exercise addiction



### Compulsive buying-shopping disorder



■ Available data

■ Congruent ■ Incongruent ■ Inconclusive

■ Congruent ■ Incongruent ■ Inconclusive

## Methods



### Budapest Longitudinal Study

(<https://bls2018.hu>)

- A representative sample of young adults (age 18-34 years)
- Four waves: N>2660
- Females: 52.02%
- Mean age: 27.03 years [SD=4.76]

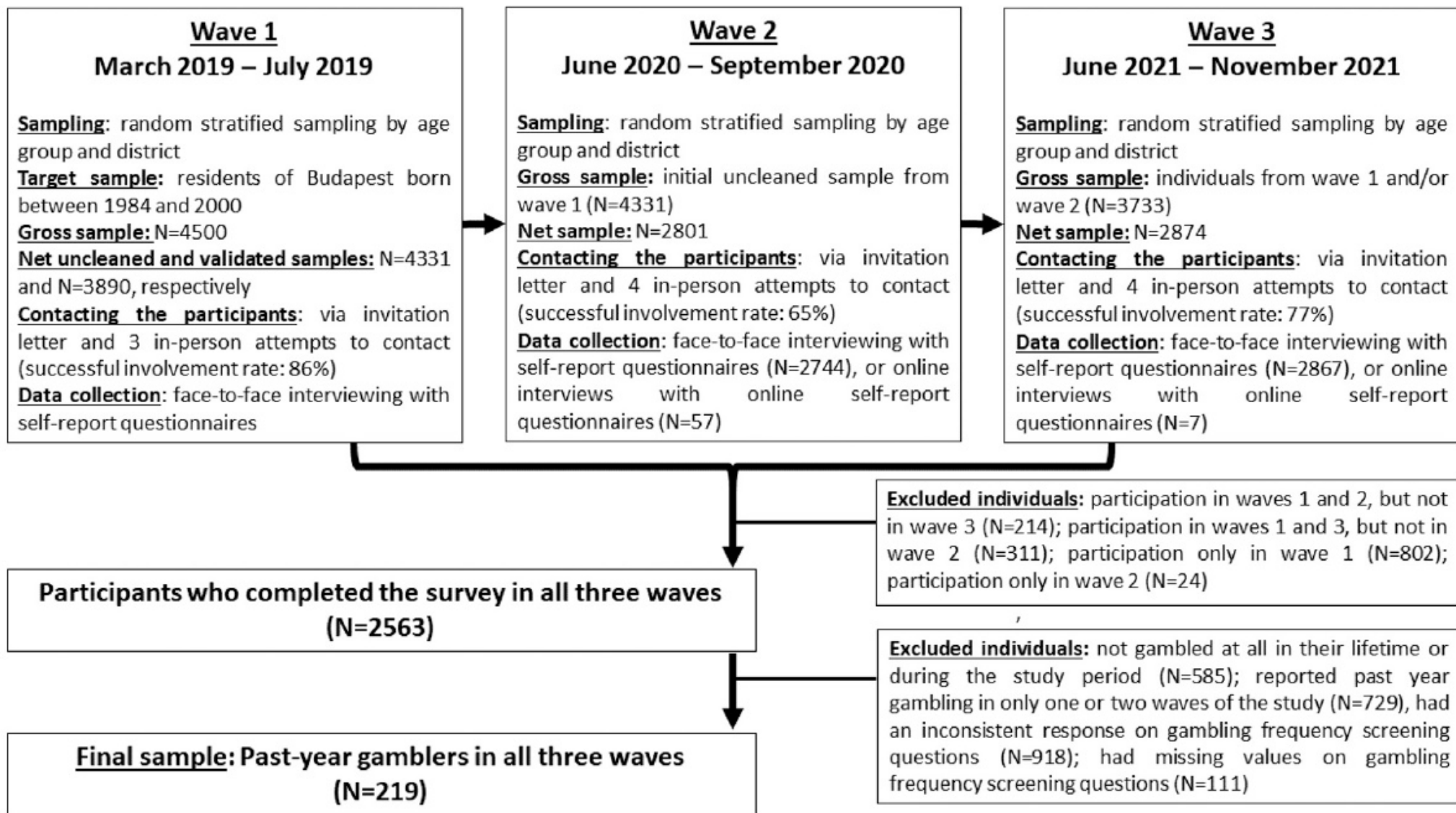
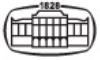


Fig. 1. Graphical illustration of the research procedure and inclusion criteria.



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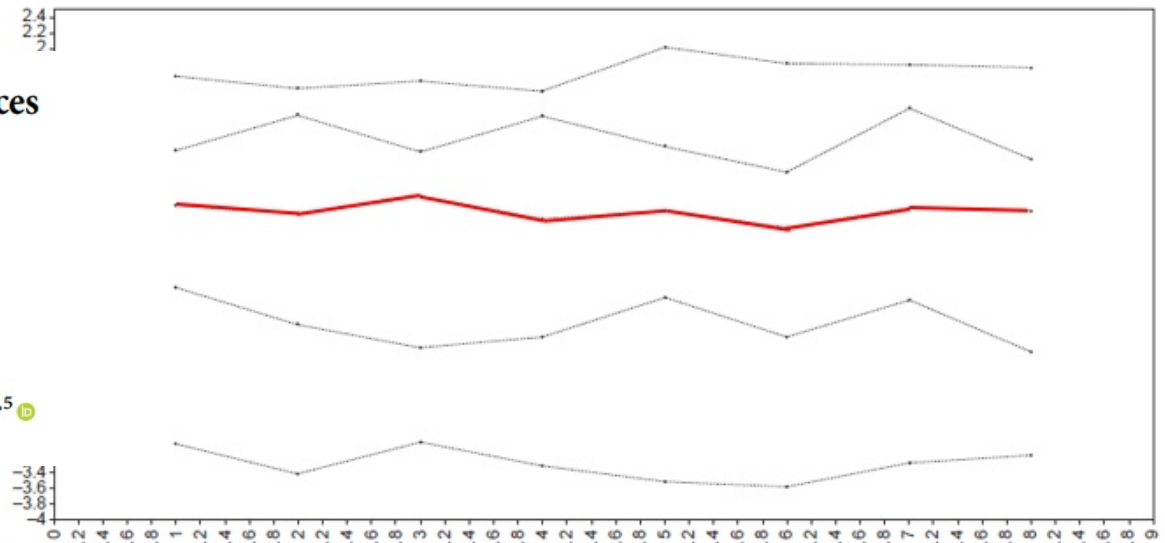
Journal of Behavioral Addictions

13 (2024) 4, 923-937

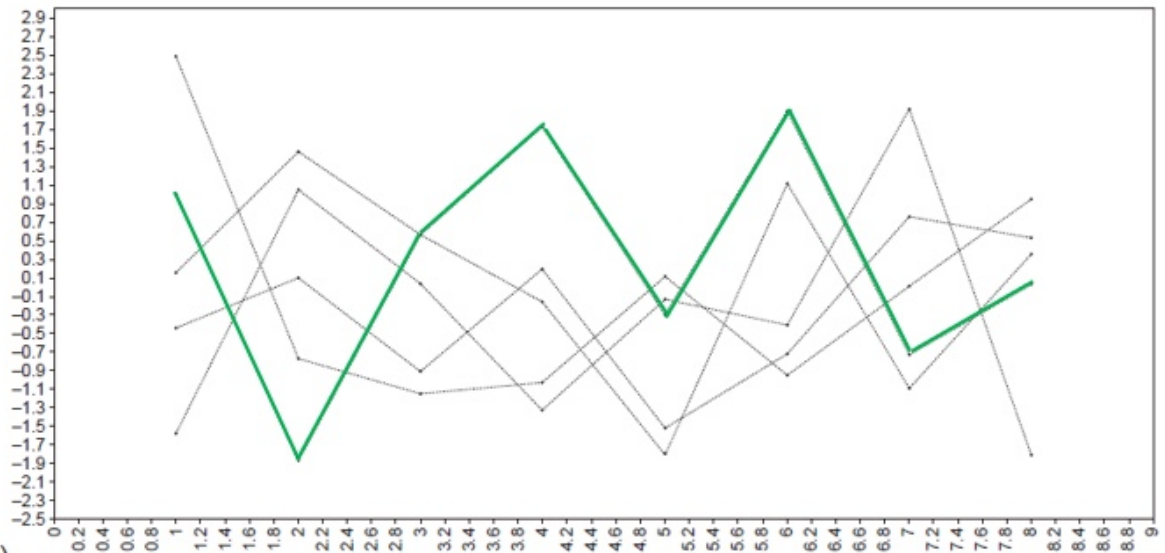
DOI:  
10.1556/2006.2024.00055  
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## Longitudinal trait and state-like differences in the components model of addiction: An illustration through social media addiction and work addiction

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ORSOLYA KIRÁLY<sup>1,2</sup>, BORBÁLA PAKSI<sup>3</sup>,  
MARK D. GRIFFITHS<sup>4</sup> and ZSOLT DEMETROVICS<sup>1,2,5</sup>

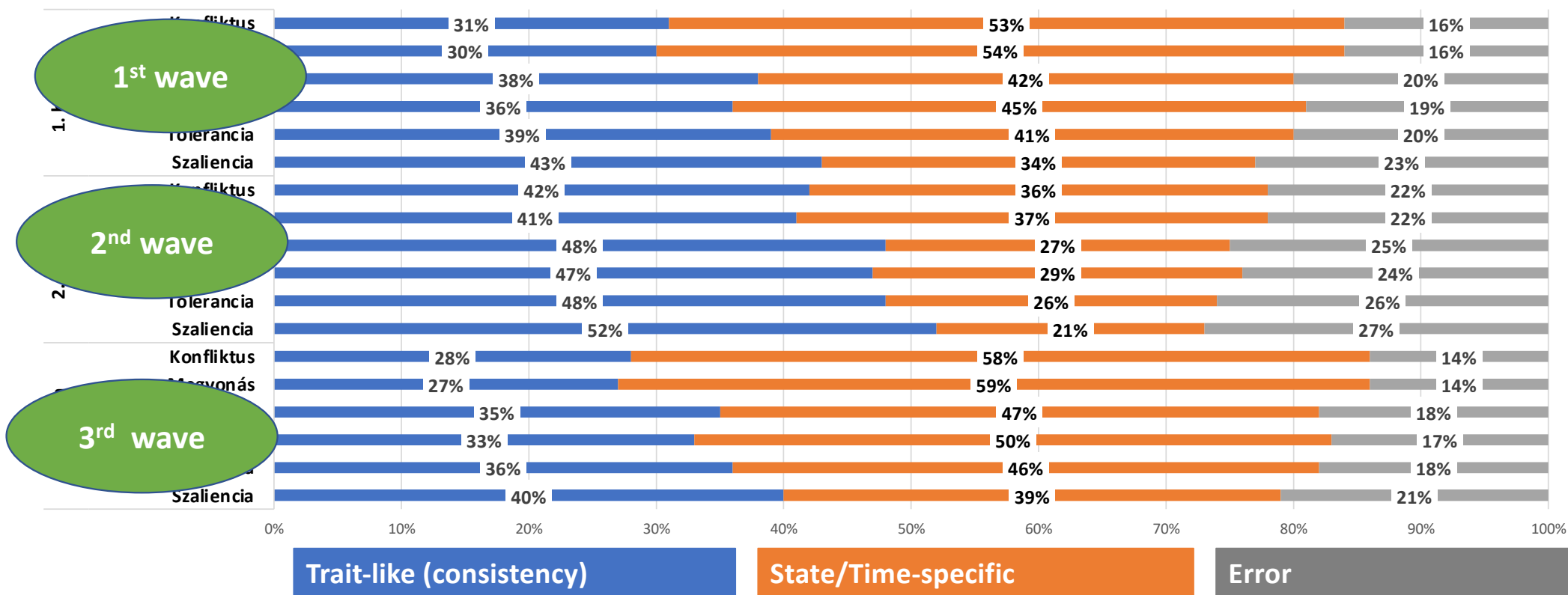


(A)

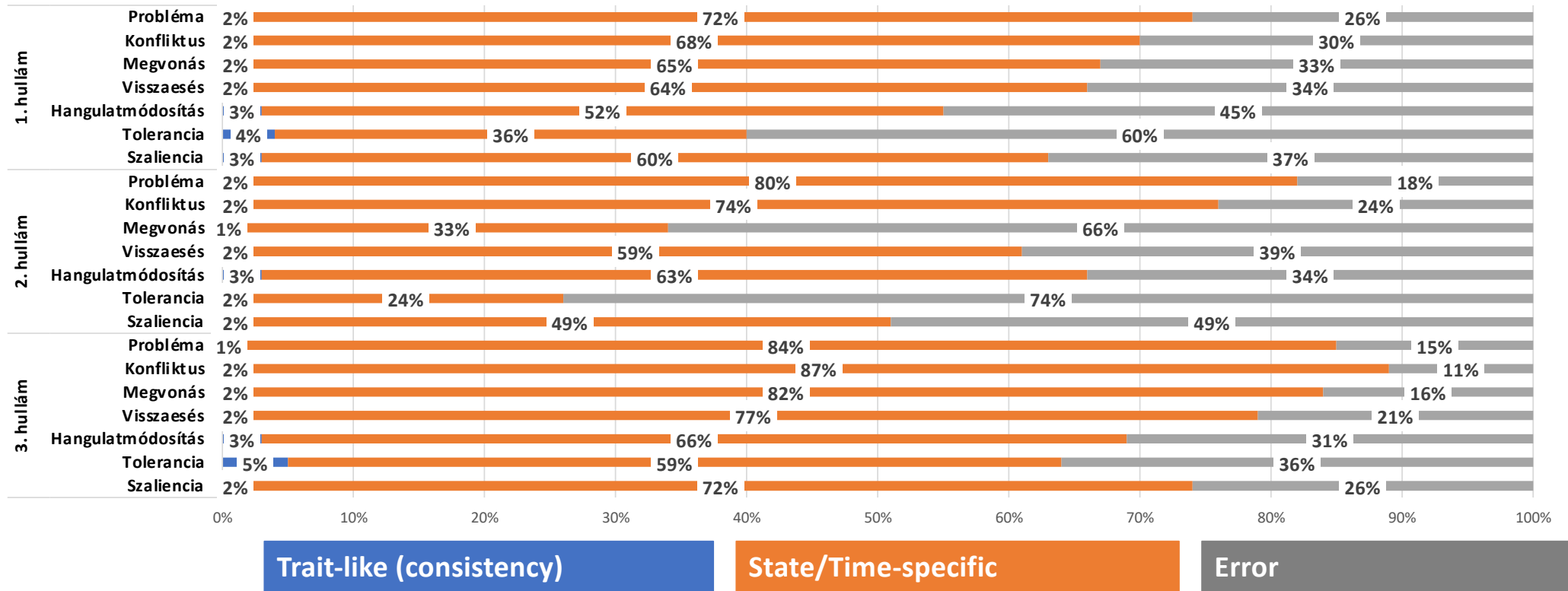


(B)

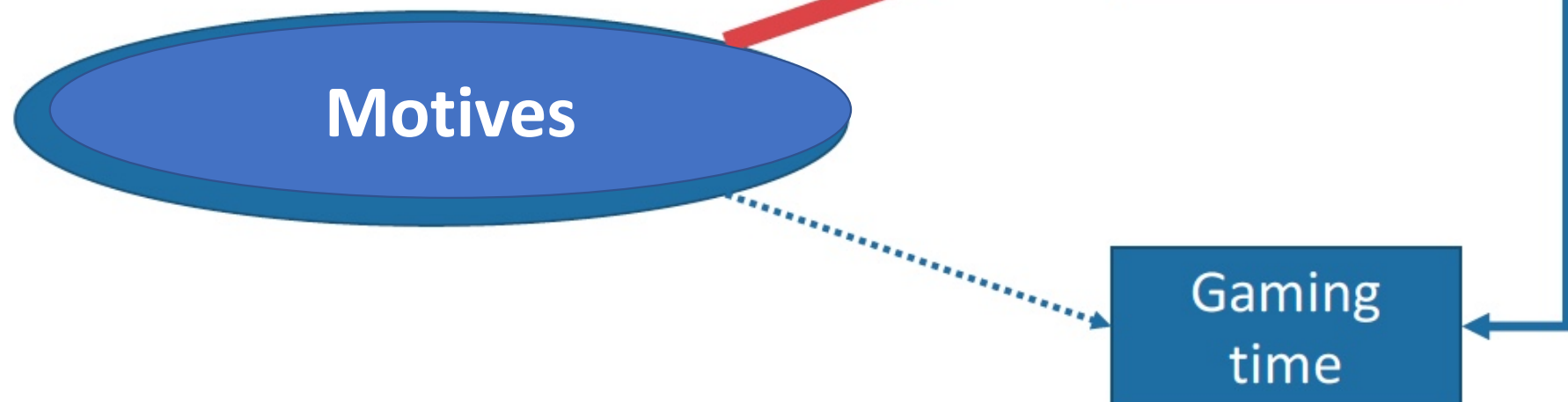
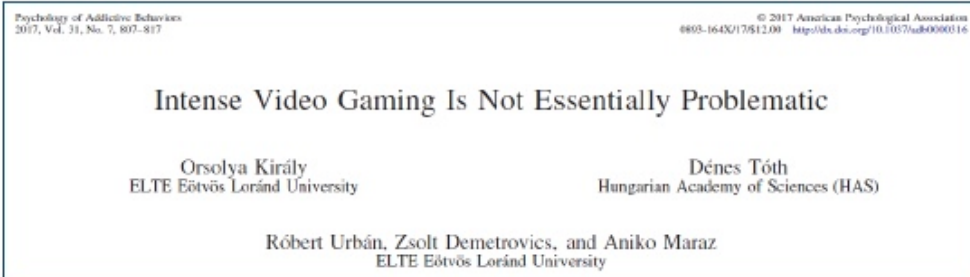
# Problematic Social Media Use



# Work Addiction



## How much or why?



# How much of why?

Psychology of Addictive Behaviors  
2017, Vol. 51, No. 7, 467–477  
© 2017 American Psychological Association  
0893-3200/17/\$12.00  
http://dx.doi.org/10.1037/0893-3200.51.07.467

**Intense Video Gaming Is Not Essentially Problematic**

Orsolya Király  
ELTE Eötvös Loránd University

Dániel Tóth  
Hungarian Academy of Sciences (HAS)

Robert Urbán, Zsófi Demetrovics, and Aniko Marz  
ELTE Eötvös Loránd University

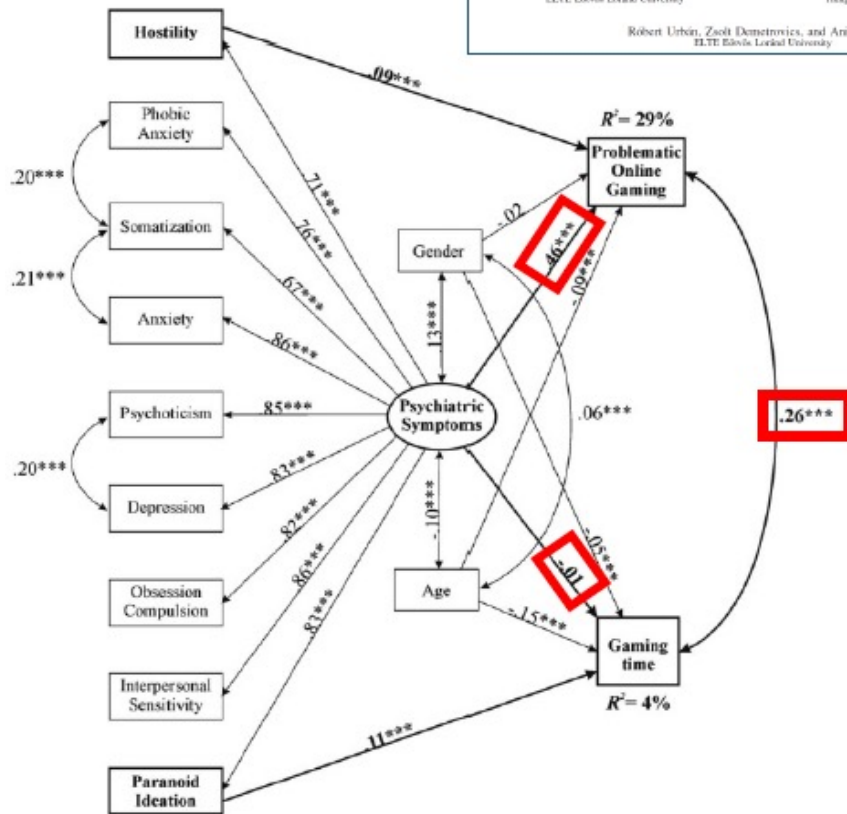


Figure 1. Structural regression model for gaming time and problematic online gaming with psychiatric symptoms as predictor variables. Note: Gender was coded as 1 for male and 2 for female. \*\*\*  $p < .001$ .

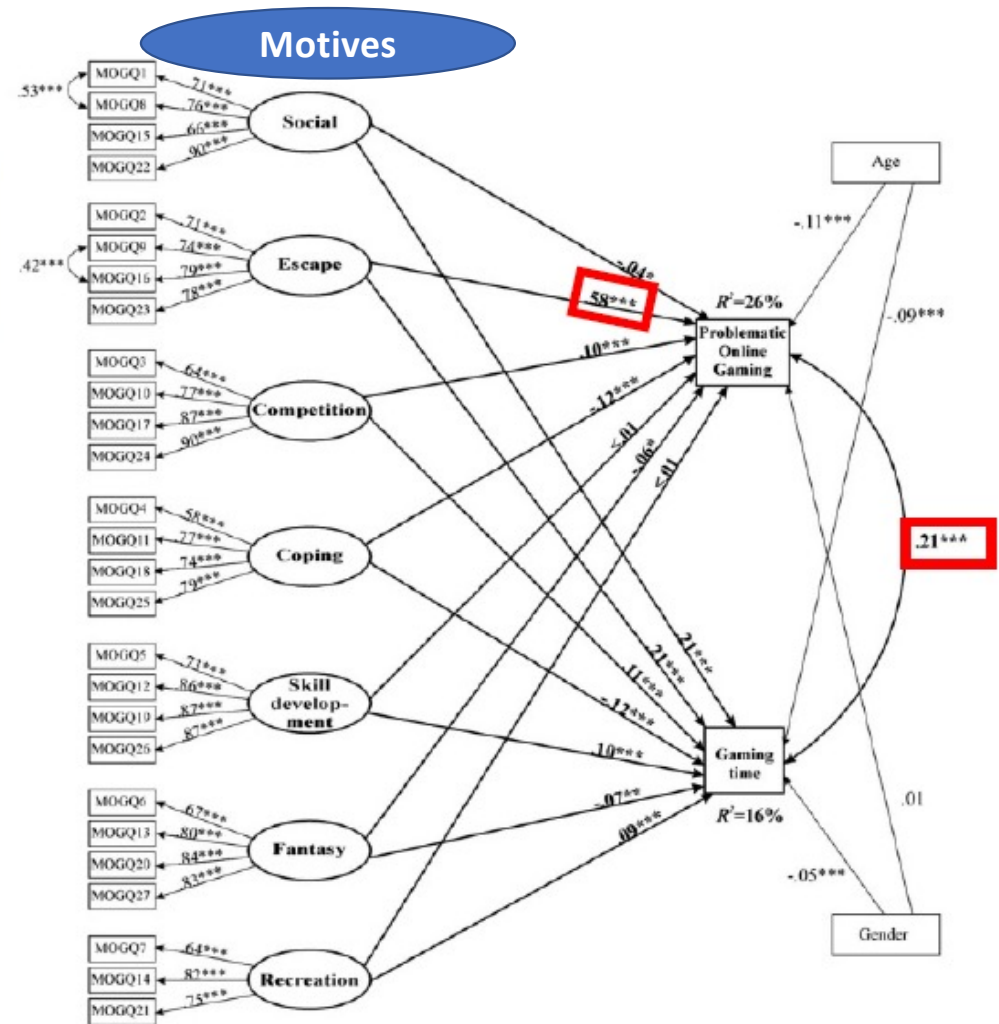


Figure 2. Structural regression model for gaming time and problematic online gaming with online gaming motives as predictor variables. Note: Gender was coded as 1 for male and 2 for female. The correlations between motivation factors, gender and age are estimated but not shown here for the sake of clarity. MOGQ1-MOGQ27 are the items of the Motives for Online Gaming Questionnaire. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

# Challenges

# Classification – What to include and where?

- Clinical relevance
- Theoretical embedding
- Empirical evidence



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Journal of Behavioral Addictions

11 (2022) 2, 150-159

Debate: Behavioral addictions in the ICD-11

DOI:  
10.1556/2006.2020.00035  
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Which conditions should be considered as disorders in the *International Classification of Diseases (ICD-11)* designation of “other specified disorders due to addictive behaviors”?

MATTHIAS BRAND<sup>1,2\*</sup>, HANS-JÜRGEN RUMPF<sup>3</sup>, ZSOLT DEMETROVICS<sup>4</sup>, ASTRID MÜLLER<sup>5</sup>, RUDOLF STARK<sup>6,7</sup>, DANIEL L. KING<sup>8</sup>, ANNA E. GOUDRIAAN<sup>9,10,11</sup>, KARL MANN<sup>12</sup>, PATRICK TROTZKE<sup>1,2</sup>, NAOMI A. FINEBERG<sup>13,14,15</sup>, SAMUEL R. CHAMBERLAIN<sup>16,17</sup>, SHANE W. KRAUS<sup>18</sup>, ELISA WEGMANN<sup>1</sup>, JOËL BILLIEUX<sup>19,20</sup> and MARC N. POTENZA<sup>21,22,23</sup>



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### Disorders due to substance use or addictive behaviours

- *Gambling disorder*
- *Gaming disorder*

### Obsessive-compulsive and related disorders

- *Obsessive-compulsive dis.*
- *Body dysmorphic disorder*
- *Hypochondriasis*
- *Hoarding disorder*
- *Body-focused repetitive behaviour disorders*
  - *Trichotillomania*
  - *Excoriation disorder*

### Feeding or eating disorders

- *Anorexia nervosa*
- *Bulimia nervosa*
- *Binge eating disorder*

### Impulse control disorders

- *Intermittent explosive disorder*
- *Pyromania*
- *Kleptomania*
- *Compulsive sexual behaviour disorder*

### Paraphilic Disorders

- *Exhibitionistic disorder*
- *Voyeuristic disorder*
- *Pedophilic disorder*
- *Coercive sexual sadism disorder*
- *Frotteuristic disorder*
- *Fetishistic disorder*

### Not in the ICD-11

#### Eating behaviour

- *Orthorexia Nervosa*
- *Food Addiction*

#### Internet / Technology / Screen-based device use-related behaviours

- *Problematic use of the internet*
- *Problematic social media use*
- *Problematic smart/mobile phone use*
- *Streaming addiction*

#### Others

- *Exercise addiction*
- *Compulsive buying-shopping disorder*
- *Work addiction*
- *Pornography addiction*
- *Religious addictions*
- *(Co-dependency)*

**Are we overpathologizing everyday life?  
A tenable blueprint for behavioral addiction research**

JOËL BILLIEUX<sup>1,2\*</sup>, ADRIANO SCHIMMENTI<sup>3</sup>, YASSER KHAZAAL<sup>4</sup>, PIERRE MAURAGE<sup>1,2</sup> and ALEXANDRE HEEREN<sup>1</sup>

## **(Over)pathologising / stigmatising**

- Relevant issue though
  - Not specific for behavioural addictions (alcohol, cannabis, schizophrenia etc. )
- ‘Pathologizing’ and ‘Over-pathologizing’ are not the same
- Not acknowledging a disorder as a disorder also has risks (e.g., the phenomenon remains hidden, there is no research, and no treatment facilities)
- A balance between alarming (sensational headlines) and careful warning is needed



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## Pervasive use of 'dark patterns' and commercial manipulation

- Algorithms are designed specifically to bypass human self-regulation and maximise time-on-site relevance
  - online video gaming
  - social media,
  - online shopping, etc.

- Supply or demand reduction?
- Who needs to be regulated?


**Regulation is needed**  
(Safety by design)



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# Conclusions

- These behaviours are rooted in basic needs.
  - A comprehensive (and flexible) addiction framework seems to be sensible
  - The continuing technological development will keep on changing the landscape of the problems and challenges
  - Heterogeneous group of behaviours: despite all the similarities and shared characteristics, there is a large variability between the different behavioural addictions (however, there is also a large variability in the characteristics of different psychoactive substances);
  - Avoidance of stigmatisation and over-pathologising cannot lead to the ignorance of clinically relevant problems
  - Artificial intelligence
  - There are many issues to study and understand beyond the addiction angle.
- 



**Thank you for your attention!**

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