

# **CENTRE for GAMBLING RESEARCH at UBC**

## **Managing Behavioural Addictions: Gambling, Video Gaming and Other Technological Addictions**

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a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

**Department of Psychology**

# Disclosures

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# Objectives

- The current diagnostic status of 'behavioural addictions' with a focus on Gambling Disorder
- Bio-psycho-social risk factors for Gambling Disorder, from a 'disease model' perspective and a public health ('harms') perspective
- Resources in BC for people experiencing gambling problems
- To consider (Video) 'Gaming Disorder' and other emerging (but putative) technological addictions, including problematic use of the internet and social media

# The Psychology of Gambling

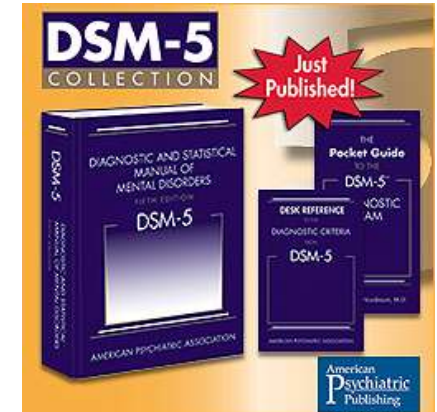


Gambling as a behaviour where something of value (typically money) is placed on the uncertain prospect of a larger prize

Common forms include: slot machines, lotteries, sports betting, + most forms offered online and increasingly via mobile devices

## 'Gambling Addiction' as a Diagnosis

- Pathological Gambling introduced in ICD-9 (1978) and DSM-III (1980)
  - grouped in Impulse Control Disorders
- In DSM-5 (2013) renamed Gambling Disorder, moved to 'Substance-Related and Addictive Disorders', threshold: 4/9
- Also reclassified in ICD-11, WHO 2019
- Prevalence: 0.5 - 1% but with ~3% experiencing subclinical features ('problem gambling')



# Clinical Assessment of Gambling Disorder

## DSM-5: at least 4 from

Pre-occupation with gambling

Needs to gamble with increasing amounts (tolerance)

Repeated attempts to reduce or quit gambling

Restless or irritable when attempting to stop gambling (withdrawal)

Gambles as means of escape or to alleviate low mood

Frequently returns to get even (loss chasing)

Lying to conceal involvement

Jeopardised / lost relationship or job due to gambling

Forced to borrow money due to gambling debt

Not better explained by manic episode / bipolar disorder

## ICD-11: all 3 for 12 months

Impaired control over gambling

Increasing priority to gambling over other activities

Continuation / escalation of gambling despite negative consequences

+ **impairment** in personal, family, social, educational, occupational functioning

Predominantly offline or online forms

## Other Behavioural Addictions

- Gaming Disorder introduced in ICD-11 (WHO, 2019)
  - Impact on daily functioning: is severity simply time spent gaming? (No: Kiraly et al 2014)
  - New era of *financial* consequences of gaming from in-game purchases and **loot boxes**
- 'Problematic Use of the Internet' (not formally recognized)
  - Excessive social media use (e.g. the 'infinite scroll')
  - Online pornography
  - Compulsive shopping
  - (also gambling, gaming)



Images: <http://besorongola.wordpress.com/2011/03/24/are-you-a-facebook-addict/>  
Red Dead Redemption 2: <https://www.vg247.com/2018/11/05/red-dead-redemption-2-poker/>

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# Screening: the PGSI

## Panel 3: Problem Gambling Severity Index

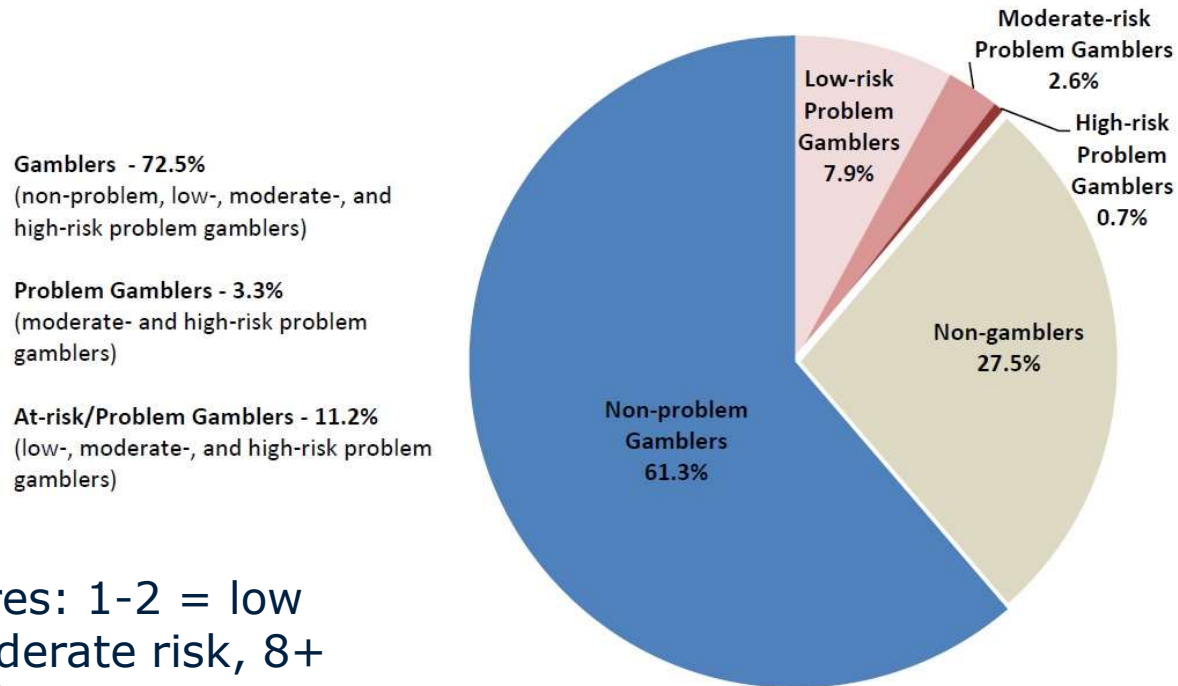
- 1 Thinking about the past 12 months, have you bet more than you could really afford to lose?
- 2 Still thinking about the past 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement?
- 3 When you gambled, did you go back another day to try to win back the money you lost?
- 4 Have you borrowed money or sold anything to get money to gamble?
- 5 Have you felt that you might have a problem with gambling?
- 6 Has gambling caused you any health problems, including stress or anxiety?
- 7 Have people criticised your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?
- 8 Has your gambling caused any financial problems for you or your household?
- 9 Have you felt guilty about the way you gamble or what happens when you gamble?

- Scored 0 = never, 1 = some of the time, 2 = most of the time, 3 = almost always



# Prevalence in British Columbia

2014 BC Prevalence Survey, using PGSI, n=3058



PGSI total scores: 1-2 = low risk, 3-7 = moderate risk, 8+ problem gambler

# Risk Factors for Gambling Disorder

- Problematic gambling is increased among
  - Men
  - Younger age
  - Lower socioeconomic status (e.g. household income)
  - Racialized groups including Indigenous peoples, Asian community in BC
  - People with other mental health problems & mental distress
  - Other behavioural addictions (gaming, shopping)
  - Trait impulsivity

BC Gambling Prevalence Survey, 2014; Ford & Hakansson 2020; Browne et al 2021

# Vulnerability to Gambling Disorder overlaps with Substance Use Disorders

## Psychological

Personality traits (e.g. impulsivity)

Cognitive distortions

Conditioning and learning processes

Motives for gambling (coping etc)

## Social

Life stresses

Childhood adversity

Social disconnection

Parental or peer exposure to gambling

## Biological

Heritability

Dopamine gene variants

Brain reward circuitry (neuroimaging)

Executive dysfunction

→ a 'bio-psycho-social' framework

# Biological Triggers: Gambling, Dopamine, and Parkinson's Disease



## Parkinson's Drugs Linked to Sex and Gambling Addictions

By Agata Blaszcak-Boxe, Contributing Writer | October 20, 2014 04:15pm ET


- Dopamine agonist meds can trigger excessive gambling
- Most linked to 2 drugs: pramipexole & ropinirole, that bind to D3 receptors (Moore et al 2014)
- Constellation with other impulse control / reward problems (hypersexuality, shopping)

# Gambling and Health Inequalities

- Gambling harms disproportionately affect racialized minorities
  - Indigenous peoples in Canada
  - Other racialized groups including Asian Canadians (BC 2014 survey)



## Indigenous Gambling and Problem Gambling in Canada

Robert J. Williams<sup>1</sup>  · Yale D. Belanger<sup>2</sup> · Carrie A. Leonard<sup>3</sup> · Rhys M. G. Stevens<sup>4</sup> · Darren R. Christensen<sup>1</sup> · Nady el-Guebaly<sup>5</sup> · David C. Hodgins<sup>6</sup> · Daniel S. McGrath<sup>6</sup>

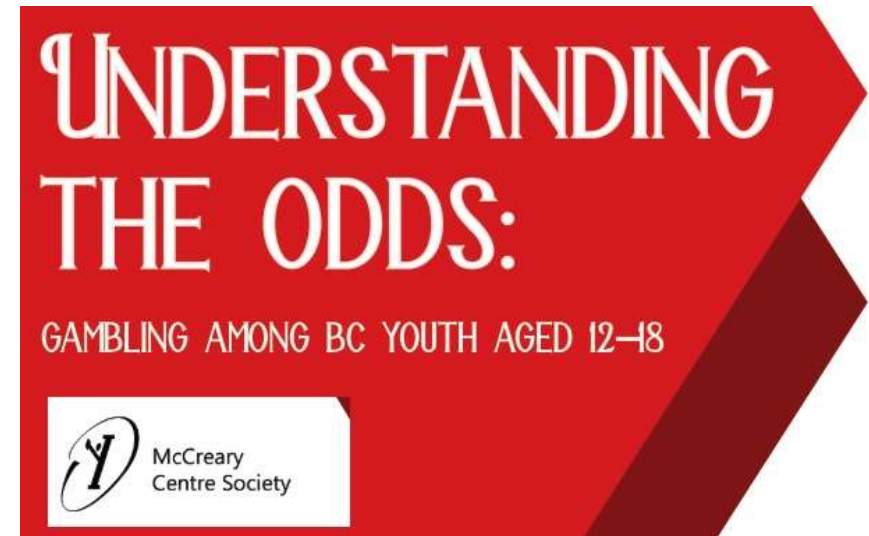
- Data from 2018 Canada Community Health Survey (CCHS, Statistics Canada): 23,952 adults over 18; 1,324 Indigenous
- “the relative popularity of gambling participants among Indigenous Canadians in 2018 is fairly similar to non-Indigenous Canadians ... greater participation in EGMs, bingo, and instant lotteries”
- “the rate of problem gambling is much higher among Indigenous Canadians (2.0%) ... compared to 0.5%. This rate of problem gambling is the highest of any racial/ethnic group in Canada in 2018”

# Gambling and Health Inequalities

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  - Other racialized groups including Asian Canadians (BC 2014 survey)
- People with gambling problems account for a larger part of gambling revenue (25 – 40%, e.g. Orford et al 2013 in UK, Williams & Wood 2004 in Canada)
- Gambling harms are wider than the symptoms of addiction
  - long-term financial effects (Muggleton et al 2021)
  - affects families & communities (Goodwin et al 2017: typically affects 6 others)
- Cowlshaw et al (2017): high rates of gambling problems in UK primary care settings, supports calls for greater screening (Blythe & van Schalkwyk, BMJ Opinion, June 2021)

## Recent BC youth data on gambling

- BC Adolescent Health Survey 2018, over 38,000 participants
- 21% of BC youth aged 12-18 gambled for money in past year
- Youth employment 20+ hrs per week linked to gambling for money
- Involvement in sports on weekly basis associated with sports betting
- Monthly gambling ~ sedentary lifestyle, less social connection, excessive technology use
- Gambling problems in 3% of those who gambled, highest in non-binary youth



Available at: [https://www.mcs.bc.ca/understanding\\_the\\_odds](https://www.mcs.bc.ca/understanding_the_odds)

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# Resources in BC for gambling problems

- Telephone helplines
- Voluntary Self-Exclusion program (plus lock-out and limit setting tools as 'responsible gambling' initiatives)
- Psychological Treatments (GamblingSupportBC)
  - Cognitive Behavioural Therapy
  - Motivational Interviewing
- Financial support (e.g. debt consolidation)



# Common concerns around technological use in youth

- Online multiplayer games are intensely social
  - Who do they game with? (friends or strangers); cyberbullying
- Parental account controls
  - Authorization of in-game purchases; cut-off times and sleep hygiene
- Problematic use of online pornography
  - ICD-11 recognized Compulsive Sexual Behaviour Disorder
  - Pornography use by itself not reliably linked to sexual functioning (Hoagland & Grubbs 2021)
- Technology as an escape
  - Nereim et al 2019: evaluate & treat for depression, social anxiety, ADHD

## COVID-19 and Behavioural Addictions

- Casinos in BC closed til July 2021. Sports / sports betting disrupted thru summer 2020.
- Key concerns:
  - Land-based gamblers 'migrating' to online gambling
  - Social isolation, boredom, financial pressures increasing gambling
- Recent BC data: 800 of the BC online prevalence survey (Feb 2020) followed-up in June 2020. Online gambling increased (22% → 31%) but proportion of problematic gambling decreased (37% → 29%)
- Profile during COVID-19 in many parts of world: overall gambling decreased but **problem gambling increased in a vulnerable minority** (e.g. high pre-pandemic PGSI, low income) (Xuereb et al 2021, Stevens & Hodgins 2021)

## Summary 1: Transdiagnostic approaches to addictions

- Emphasize the similarities over the differences
  - Cravings, withdrawal, tolerance, loss of control – all signs of dependence (Kim et al 2020)
- Broadens the definition to include behavioural addictions (Shaffer et al 2004, 2018)
- Not without controversy!
  - the 'over-pathologizing of everyday life' (Billieux et al 2015)
  - Some expressions are unique (e.g. 'chasing' and financial consequences of gambling & loot boxes)

The Switch

Video game addiction is a real condition, WHO says. Here's what that means.

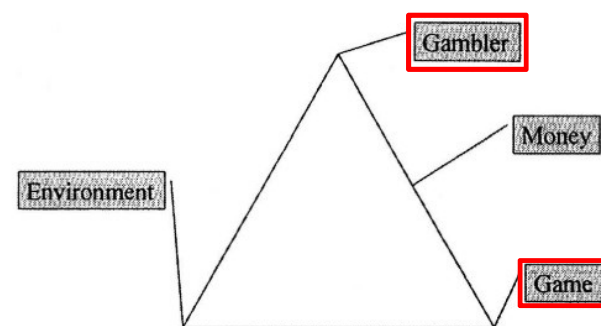


Washington Post, 18 June 2018

## Summary 2: Shifting to a public health approach

- Public health approach considers harms & wellbeing in full population, rather than <1% seeking treatment
  - Harms ≠ symptoms
  - Harms in affected others
  - Financial harms can extend for years after the gambling episode (e.g. poor credit)
- The prevention paradox: at a population level, recreational & low-risk gamblers account for majority of harms (~85% in Browne et al 2016)
  - “An ounce of prevention is worth a pound of cure” Benjamin Franklin

Figure 4  
A Public Health View of Disordered Gambling



Korn & Shaffer 1999:  
interplay of the gambler,  
the gambling product &  
the environment

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