GAMBLING AND GAMING IN ADOLESCENTS

Dr Mark Griffiths
Professor of Gambling Studies

International Gaming Research Unit
Psychology Division, Nottingham Trent University
United Kingdom

mark.griffiths@ntu.ac.uk
OVERVIEW OF THE TALK

- Defining addiction
- Adolescent gambling addiction
- Adolescent gaming addiction
- Gambling/gaming addiction treatment
- Why are there so few adolescent gambling and gaming addicts in treatment?
"Certain individuals use certain substances in certain ways, thought at certain times to be unacceptable by certain other individuals for reasons both certain and uncertain"

(Burglass & Shaffer, 1984)
“Addictive behaviour is a repetitive habit pattern that increases the risk of disease and/or associated personal and social problems....often experienced subjectively as 'loss of control'....these habit patterns are typically characterized by immediate gratification (short term reward), often coupled with delayed, deleterious effects (long term costs)....attempts to change an addictive behaviour (via treatment or by self-initiation) are typically marked by high relapse rates”

(Marlatt, Baer, Donovan & Kivlahan, 1988)
GAMBLING ADDICTION (DSM-5)

• Gambling addiction is the ‘breakthrough’ addiction

• The re-classifying of pathological gambling from an ‘impulse control disorder’ to a behavioral addiction radically changes the boundaries of addictive behaviour
# Adolescent Gambling Prevalence

(Calado & Griffiths, 2016)

<table>
<thead>
<tr>
<th>Country/Area</th>
<th>Past year gambling prevalence rate</th>
<th>Past year problem gambling prevalence rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>US (National)</td>
<td>67%</td>
<td>1.3%</td>
</tr>
<tr>
<td>US (Individual states)</td>
<td>20%-86%</td>
<td>0.9%-5.7%</td>
</tr>
<tr>
<td>Canada (National)</td>
<td>61%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Canada (Individual provinces)</td>
<td>24%-90%</td>
<td>2.2%-8.1%</td>
</tr>
<tr>
<td>Europe*</td>
<td>33%-82%</td>
<td>0.2%-5.6%</td>
</tr>
<tr>
<td>Australia (Individual territories)</td>
<td>41%-89%</td>
<td>1.0%-4.4%</td>
</tr>
<tr>
<td>New Zealand (National)</td>
<td>65%-68%</td>
<td>1.0%-4.4%</td>
</tr>
</tbody>
</table>

*Albania, Belgium, Croatia, Denmark, Estonia, Finland, Germany, Great Britain, Iceland, Lithuania, Italy, Norway, Romania, Serbia, Slovakia, Spain, Switzerland, Sweden*
MOTIVATIONS FOR ADOLESCENT GAMBLING
(Canale, Santinello & Griffiths, 2015)

- Recreational factors
- Social factors
- Monetary factors
- Coping factors
- Enhancement factors
ADDICTION COMPONENTS
(Griffiths, 1995; 1996; 2005; 2009)

- Salience
- Mood modification
- Tolerance
- Withdrawal
- Conflict
- Relapse
"If I wasn't actually gambling I was spending the rest of my time working out clever little schemes to obtain money to feed my habit. These two activities literally took up all my time"
SALIENCE (EXTRACT 2): ‘BRIAN’

"Gamble, gamble, gamble your life away..you might as well have put it down the drain. You've got to face the truth that you're having a love affair, and it's with a machine whose lights flash, takes your money and kills your soul.”

CartoonChurch.com
SALIENCE (EXTRACT 3): ‘DAVID’

"During four or five years of compulsive gambling I think I missed about six or seven days of playing fruit machines - keeping in mind that about four or five of those days were Christmas days where it was impossible to gain access to a gambling machine...As you have probably gathered, I ate, slept and breathed gambling machines...I couldn't even find time to spend with the people I loved...The machines were more important than anything or anyone else”

(from Griffiths, 2002)
ADDICTION COMPONENTS
(Griffiths, 1995; 1996; 2005; 2009)

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- Mood modification
- Tolerance
- Withdrawal
- Conflict
- Relapse

Now many applications
INFLUENCES ON ADDICTIVE BEHAVIOUR
(Griffiths & Delfabbro, 2001)

Structural Characteristics

Individual Characteristics

Situational Characteristics

Addictive Behaviour
INDIVIDUAL CHARACTERISTICS
(Griffiths, 2006)
SITUATIONAL CHARACTERISTICS
(Griffiths, 1993; Griffiths & Parke, 2003)

- ATMs
- Sensory Factors
- Alcohol
- Comfort ('Eating, seating, heating')
- Social Facilitation
- Floor Layout
- Intrinsic Association
STRUCTURAL CHARACTERISTICS
(Griffiths, 1993; Parke & Griffiths, 2006; 2007)

- Event Frequency
- Bettor Involvement and Skill
- Credits (Suspension of judgment)
- Payout Interval
- Sound and lighting effects
- The psychology of the near miss
- Familiarity
- Win Probability
- Change Facilities and Credit Teasing
- Verbal Interaction
ONLINE GAMING ADDICTION: THE DEBATES
(Griffiths, King & Demetrovics, 2014; Pontes, Kuss & Griffiths, 2015)

• Prior to the publication of the latest DSM-5 by the American Psychiatric Association, there had been debate as to whether ‘internet addiction’ should be introduced into the text as a separate disorder.

• Also been debate as to whether those researching in the IA field should be researching generalized internet use and/or the potentially addictive activities that can be engaged on the internet (e.g., gambling, video gaming, sex, shopping, etc.)
• Substance Use Disorder Work Group recommended that the DSM-5 include a subtype of problematic internet use

• i.e., Internet Gaming Disorder in Section 3 (‘Emerging Measures and Models’)

• Is an area that needed future research before being included in future editions of the DSM.
INTERNET GAMING DISORDER CRITERIA
(DSM-5; APA 2013; Griffiths et al, 2014)

• (1) Preoccupation with internet games [salience]
• (2) Withdrawal symptoms when internet gaming is taken away [withdrawal]
• (3) The need to spend increasing amounts of time engaged in internet gaming [tolerance]
• (4) Unsuccessful attempts to control participation in internet gaming [relapse/loss of control]
• (5) Loss of interest in hobbies and entertainment as a result of, and with the exception of, internet gaming [conflict]
• (6) continued excessive use of internet games despite knowledge of psychosocial problems [conflict]

• (7) deception of family members, therapists, or others regarding the amount of internet gaming [conflict]

• (8) use of the internet gaming to escape or relieve a negative mood [mood modification]

• (9) loss of a significant relationship, job, or educational or career opportunity because of participation in internet games [conflict]
ONLINE GAMING ADDICTION
(Kuss & Griffiths, 2012a; 2012b; Pontes & Griffiths, 2015)

- Reviewed over 100 empirical studies on internet gaming addiction
- Argued that gaming addiction follows a continuum
- Antecedents in etiology and risk factors, through to the development of an addiction
- Gaming addiction associated with various personality traits (e.g., introversion, sensation-seeking, neuroticism, state/trait anxiety, low emotional intelligence, social inhibition)
- Terminologies and assessment of addiction was variable (e.g., problem video game playing, problematic online game use, video game addiction, online gaming addiction)

- Excessive (problematic) engagement found in approx. 8-12% of young persons, whereas addiction seems to be present in 2-5% of children, teenagers and students.
NEUROBIOLOGY OF GAMING ADDICTION

• A systematic review of 18 neuroimaging studies examining gaming addiction (Kuss & Griffiths, 2012) noted:

• “These studies provide compelling evidence for the similarities between different types of addictions, notably substance-related addictions and Internet and gaming addiction, on a variety of levels. On the molecular level, Internet addiction is characterized by an overall reward deficiency that entails decreased dopaminergic activity. On the level of neural circuitry, Internet and gaming addiction lead to neuroadaptation and structural changes that occur as a consequence of prolonged increased activity in brain areas associated with addiction. On a behavioral level, Internet and gaming addicts appear to be constricted with regards to their cognitive functioning in various domains” (p.347).
WHY ARE THERE SO FEW ADOLESCENT GAMBLING AND GAMING ADDICTS IN TREATMENT? (Griffiths, 2002, 2015)

• Adolescents do not seek treatment in general
• Adolescents may acknowledge they have a problem concerning gambling or gaming but do not want to seek treatment
• There are few or no treatment programs available for adolescent gambling and gaming addiction
• Available treatment programs are not appropriate and/or suitable for adolescents

• Attending treatment programs may be stigmatizing for adolescents

• Adolescents may seek other forms of treatment, but gambling/gaming use are less likely to be seen as requiring intervention

• Adolescents with problematic gambling or gaming may lie or distort the truth when they fill out research surveys
• Adolescents with gambling or gaming problems may lie or distort the truth when they fill out research surveys.

• Screening instruments for assessing problematic gambling and gaming may not be valid for adolescents:

• Screening instruments for adolescent gambling/gaming are being used incorrectly.

• Adolescents may not understand what they are asked in research surveys.
• Adolescents with problematic gambling or gaming may undergo spontaneous remission and/or mature out of problems, and therefore, may not seek treatment

• Adolescent excesses may change too quickly to warrant treatment

• The negative consequences of adolescent problem gambling are not necessarily unique to problematic gambling or gaming and may be attributed to other behaviors
CONCLUSIONS

- Gambling and gaming addictions in adolescents exist.
- Some problems may be more serious than others depending upon the context.
- Gambling and gaming addiction are complex processes and are at core biopsychosocial.
- Addiction does not just reside within the individual - situational and structural characteristics can play a role.
THANK YOU FOR LISTENING!