

ADDICTION WITHOUT DRUGS: THE CASE OF VIDEO GAME ADDICTION

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VIDEO GAME ADDICTION

- According to *Soper and Miller (1983)* "video game addiction" is like any other behavioural addiction and consists of:
 - (1) a compulsive behavioural involvement
 - (2) a lack of interest in other activities
 - (3) association mainly with other addicts
 - (4) physical and mental symptoms when attempting to stop the behaviour (e.g. the shakes)

- Way of determining whether video game addiction is addictive in a non metaphorical sense - compare it against clinical criteria for other addictions.

ADDICTION COMPONENTS

(Griffiths, 1995; 1996; 2005; 2009)

- **Salience**
- **Mood modification**
 - **Tolerance**
 - **Withdrawal**
 - **Conflict**
 - **Relapse**

VIDEOGAME ADDICTION?

- Studies have shown playing computer games increases arousal levels (*e.g., Segal & Dietz, 1991; Griffiths & Dancaster, 1995; Lim & Lee, 2008*).
- Early studies indicate that computer game addiction does exist and that 5-7% of children play games for over 30 hours a week (*Griffiths & Hunt, 1995; 1998; Griffiths, 1997*).
- Later studies also suggest videogame addiction exists (*Tejeiro-Delguero & Moran, 2002; Moran, 2002; Salguero et al, 2002; Chui et al, 2002; Leung, 2004; Wan & Chiou, 2006; Grusser et al, 2007; Hart et al, 2008; Brody, 2008; Rehbein et al, 2010; Mehroof & Griffiths, 2010*).

BEHAVIOURAL INDICATORS OF EXCESSIVE PLAY

- Stealing money to play arcade games (*Klein, 1984; Keepers, 1990*)
- Stealing money to buy new games (*Griffiths & Hunt, 1995;1998*)
- Truancing from school/college or sacrificing work to play (*Keepers, 1990; Griffiths & Hunt, 1995; 1998; Grusser et al, 2007; Rehbein et al, 2010*)
- Not doing academic work/getting poor grades (*Griffiths & Hunt, 1993; Phillips et al, 1995; Chiu et al, 2004; Ng & Weimar-Hastings, 2005; Smyth, 2007; Hart et al, 2008; Rehbein et al, 2010*)
- Sacrificing social activities to play (*Egli & Meyers, 1984; Griffiths & Hunt, 1995; 1998; Smyth, 2007; Grusser et al, 2007; Hart et al, 2008; Rehbein et al, 2008*))
- Irritability and annoyance if unable to play (*Griffiths & Hunt, 1995; 1998; Rutkowska & Carlton, 1994; Grusser et al, 2007*)
- Playing longer than intended (*Griffiths & Hunt, 1995; 1998; Phillips et al, 1995*)
- Increased social anxiety (*Lo et al, 2005; Hart et al, 2008*)
- Decreased interpersonal relationships (*Lo et al, 2005; Ng & Weimar-Hastings, 2005; Smyth, 2007*)
- Poor sleep (*Smyth, 2007; Grusser et al, 2007; Rehbein et al, 2010*)

PHYSICAL AND SOCIAL CONSEQUENCES OF EXCESSIVE PLAY

- Photosensitive epilepsy (*e.g. Maeda et al, 1990; Graf et al, 1994; Harding & Jeavons, 1994; Quirk et al, 1995; Millett et al, 1997*).
- Auditory hallucinations (*Spence, 1993*)
- Enuresis (*Schink, 1991*)
- Encoprisis (*Corkery, 1990*)
- Skin, joint and muscle problems, blisters, calluses, hand and finger numbness (*Loftus & Loftus, 1983*)
- RSI (“Nintendonitis”) (*Reinstein, 1983; Brasington, 1990; Casanova & Casanova, 1991; Siegal, 1991*)
- Wrist, neck and elbow pain (*McCowan, 1981; Miller, 1991*)
- Hand-arm vibration syndrome (*Cleary, McKendrick & Sills, 2002*)
- Obesity (*Shimai et al, 1993; Deheger et al, 1997 Johnson & Hackett, 1997*).
- Increased aggression (*e.g., Griffiths, 1999; Anderson, 2006*)

Some of these adverse effects are quite rare and "treatment" simply involved non-playing of the games in question.

ONLINE GAMING ADDICTION

- Electronic games can be delivered via a number of general hardware systems:
 - handheld
 - personal computer
 - home video console
 - arcade machines
 - Internet

Could the medium make a difference in terms of excessive play?

GENERIC FACTORS THAT MAKE INTERNET ATTRACTIVE TO USERS

(Griffiths, 2003)

- *Access*
- *Affordability*
- *Anonymity*
- *Convenience*
- *Disinhibition*
- *Escape*
- *Social acceptability*
- *Long working hours*

- Many excessive users of the internet are not "Internet addicts"
- Just use the Internet excessively as a **medium to fuel other addictions** (*Griffiths, 1999, 2000*)
- The Internet is just the place where they engage in the behaviour
- There are case study reports of individuals who appear to be addicted to the Internet itself (*Griffiths, 2000b; Young, 1998*)

- These are usually people who use Internet chat rooms or play fantasy role playing games
- (activities that they would not engage in except on the Internet itself)
- Engaged in **text-based virtual realities** and take on other personas and social identities as a way of raising self-esteem
- Internet may provide an **alternative reality** to the user and allow them feelings of **immersion** and **anonymity**

ONLINE GAMING: IGRU STUDIES (1)

- Online gamers are 85% male; 60% are over 20 years old; social elements of the game are most important; adolescents prefer violent features; some players playing over 80 hours a week (addiction??) (*Griffiths, Davies & Chappell, 2003; 2004a; 2004b*)
- Accounts by players and ex-players appear to be ‘addicted’ to online games in same way that other people become addicted to alcohol or gambling (*Chappell, Eatough, Davies & Griffiths, 2006; Hussain & Griffiths, 2009; Mehroof & Griffiths, 2010*)
- 12% of gamers display at least three diagnostic criteria of addiction concerning gaming behaviour craving, tolerance, withdrawal symptoms, loss of control, neglect of other activities, etc. (*Grüsser, Thaleman & Griffiths, 2007*)

ONLINE GAMING: IGRU STUDIES (2)

- Online gaming and time loss - not necessarily bad (*Wood & Griffiths, 2007; Wood, Griffiths & Parke, 2007*)
- Online gaming can be used for socializing and meeting friends and future partners (*Cole & Griffiths, 2007*)
- Online gaming can be a way of exploring other personas such as gender swapping (*Hussain & Griffiths, 2008; 2009*)
- Online gaming is converging with online gambling (*Griffiths, 2008; King, Delfabbro & Griffiths, 2010*)
- Online gaming excess and online gaming addiction not the same (*Griffiths, 2010*)

CONCLUSIONS

- Video game addiction appears to exist (depending upon addiction criteria used)
- Adverse effects are relatively minor and temporary, resolving spontaneously with decreased frequency of play, or to affect only a small subgroup of players.
- Excessive players most at-risk from developing problems although more research needed
- Despite positive consequences for many, online gaming can be negative to a minority. In this case, the medium may be more harmful for susceptible individuals