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# 2015 Clinical Social Work Institute Wednesday, May 6, 2015















# Video Game Genres

- First Person Shooter
- MMOFPS (Massive Multiplayer Online First Person Shooter)
- Third Person Shooter
- Real-Time 3D Adventure
- RPG (Role Playing Game)
- MMORPG's (Massive Multiplayer Online Role Playing Game)

- Simulation (Construction and Life)
- Strategy (Top Down, Turn Based)
- MMORTS (Massive Multiplayer Online Real Time Strategy)
- Sports
- Open World/Sandbox
- Music

 The worldwide video game marketplace, which includes video game console hardware and software, online, mobile and PC games, will reach \$93 billion in 2013, up from \$79 billion in 2012, according to Gartner, Inc. Driven by strong mobile gaming and video game console and software sales, the market is forecast to reach \$111 billion by 2015.

### Stats...

- Addiction to the Internet? Experts say it's a real problem that affects about 8%-12% of U.S. children.
- •The average child will spend almost 2,000 hours in front of a screen between their tenth and eleventh birthdays.
- With kids ages 8 to 18 spending on average 44.5 hours per week in front of screens, parent are increasingly concerned that screen time is robbing them of real world experiences.
- Nearly 23% of youth report that they feel "addicted to video games" (31% of males, 13% of females).

# Stats...

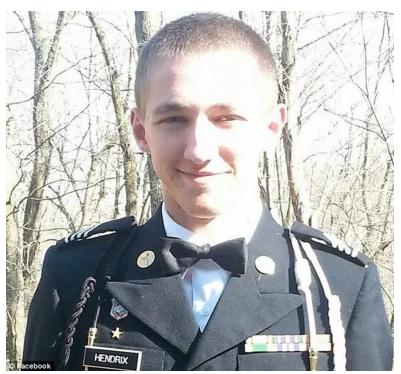
- The China Communist Youth League claimed in 2007 that over 17% of Chinese citizens between 13 and 17 were addicted to the Internet.
- More recently, studies have documented Internet addiction in a growing number of countries such as Italy (Ferraro, Caci, D'Amico, & Di Blasi, 2007), Pakistan (Suhail & Bargees, 2006), and the Czech Republic (Simkova & Cincera, 2004). Reports also indicate that Internet addiction has become a serious public health concern in China (BBC News, 2005), Korea (Hur, 2006), and Taiwan (Lee, 2007).
- Dr. Douglas Gentile, Director of the Media Research Lab at Iowa State University reports, "Almost one out of every ten youth gamers shows enough symptoms of damage to their school, family, and psychological functioning to merit serious concern."

# Worst case effects...

- In 2005, Shanghai gamer Qiu Chengwei stabbed a friend to death when he found out that he had sold a virtual sword belonging to Chengwei on eBay for 7,200 yuan (\$738).
- In 2009, an Ohio court sentenced 17 year-old Daniel Petric to 23 years in prison for the fatal shooting of his mother. Petric had shot both his parents after they took away his copy of Halo 3.
- In 2011, Rebecca Christie was sentenced to 25 years in prison by a New Mexico court for allowing her 3 ½ year-old daughter to die of malnutrition while she spent hours playing World of Warcraft.
- 9 year old Anthony Maldonado was stabbed to death by a 25 year old, Alejandro Morales, over an argument about Tony Hawk.
- After a 50-hour Starcraft session, the South Korean man collapsed and died from heart failure.
- Last Thanksgiving, Shawn, 21, committed suicide. His mother found him at his apartment. He had shot himself at his computer. On the screen was the online computer game, Everquest.

# kentucky.com Lexington Herald-Leader News, sports and entertainment

- Jason C. Hendrix, 16, is believed to have shot and killed his mother, father and sister after a dispute with his parents over computer use before driving from Corbin to the East Coast, where he was killed in a shootout with police in Maryland, Corbin police Chief David Campbell said Sunday.
- Hendrix, a high school Junior ROTC student and active church member, apparently went to a church youth meeting Wednesday night after his family had been slain, Campbell said.



# What contributes to video game habituation???

# OPERANT CONDITIONING!!!

#### Reinforcement Schedules Compared

SCHEDULE OF REINFORCEMENT	RESPONSE RATE	PATTERN OF RESPONSES	RESISTANCE TO	
Fixed-ratio schedule	Very high	Steady response with low ratio.  Brief pause after each reinforcement with very high ratio.	The higher the ratio, the more resistance to extinction.	
Variable-ratio Highest response rate schedule		Constant response pattern, no pauses.	Most resistance to extinction.	
Fixed-interval Lowest response rate schedule		Long pause after reinforcement, followed by gradual acceleration.	The longer the interval, the more resistance to extinction.	
Variable-interval schedule	Moderate	Stable, uniform response.	More resistance to extinction than fixed-interval schedule with same average interval.	



# Elements Contributing to Habituation

- ...are based on a <u>variable ratio interval reward</u> <u>schedule</u>...which rewards the player after a predetermined average number of in-game responses...and is well-established as the form of reinforcement that is best at keeping a behavior (any behavior) alive even when rewards become less frequent (which is often true of video games).
- ...frequently reward the player for minimal effort in the early stages of gameplay and then gradually increases the amount of time and effort that is necessary to receive a reward as the game progresses...and by this time the player is already "hooked."

# **Elements Contributing to Habituation**

(Continued)

- ...have no end...which means that someone can play forever without "beating" the game and receiving the clear signal that the game is over and it is time to move on.
- ...encourage online social interactions with other players...which often requires great dedication and commitment to a team of fellow gamers to accomplish tasks / goals, even if this means neglecting "real world" responsibilities.

"...so, what makes video games addictive? The achievement system. I am talking about the achievement that is put into every game. Before I get to that, let me explain how it works - You do something, you succeed, you recognize the achievement, and then you get a sense of euphoria. That euphoric sense is what is addictive. Your brain craves that..."

- a video game programmer and gamer

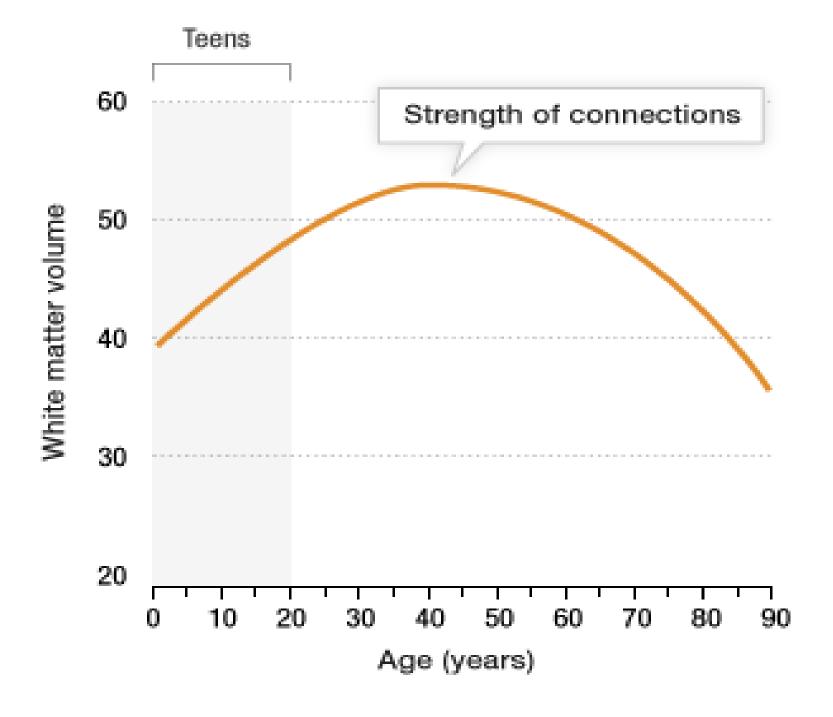
# The 'ACE' Model

- Accessibility. Because of the convenience of the Internet, users now have easy and immediate access to gambling, shopping and gaming at any time of day, without the hassles of everyday life (e.g. travelling or queues).
- **Control.** Users are in control of their own online activity. With the use of newer technology such as Tablet Computers, users can engage with the Internet without others knowing about it.
- Excitement. Internet users often get an excited feeling of a 'rush' or a buzz that they get when winning. Gambling, gaming and online bidding all potentially result in a win. Users will use the net as a way of gaining this emotion.

Internet users can become addicted to playing online games, gambling and shopping through the feeling it gives them. These online activities can create the feeling of convenience, independence and excitement, which makes the user want to do it again.

# **Children PLAY!**

- It has been said that play is the activity uniquely appropriate to the child.
- Systematic research has increasingly demonstrated a series of clear benefits of children's engagement in pretend games from the ages of about two and one half through ages six or seven.
- An important benefit of early pretend play may be its enhancement of the child's capacity for cognitive flexibility and, ultimately, creativity (Russ, 2004; Singer & Singer, 2005).
- Play is a major arena where children express affect and primary process material (primary vs. secondary process).

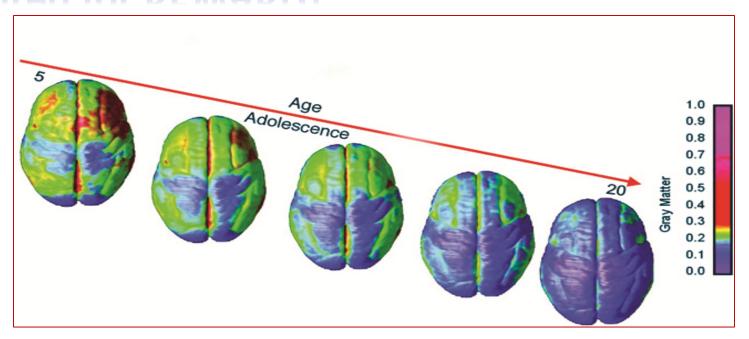


## Teen Neurological development

The nerve cells that connect teenagers' frontal lobes with the rest of their brains are sluggish. Teenagers don't have as much of the fatty coating called myelin, or "white matter," that adults have in this area.

Think of it as insulation on an electrical wire. Nerves need myelin for nerve signals to flow freely. Spotty or thin myelin leads to inefficient communication between one part of the brain and another.

# Wired for REWARD?



- The back of the brain matures ahead of the front. While the teen brain's impulse control center has yet to reach full maturity, its reward circuitry is not only ready to go, it is on overdrive, according to a growing body of data.
- Studies in humans and animals show adolescents react more strongly to reward than adults and children. Teens display greater activity in the nucleus accumbens a component of the brain's reward system.

# Environmental/Socializing problems that create risk

- Lack of successful experiences in real life
- Low parental support
- High video game use by parents
- Divorce or separation of parents
- Behavioral problems or problems at school
- Truancy from classes
- School phobia
- Poor grades
- Repeating a grade

# **Further Risk Factors**

- Anxiety. You may use the Internet to distract yourself from your worries and fears. An anxiety
  disorder like obsessive-compulsive disorder may also contribute to excessive email checking and
  compulsive Internet use.
- **Depression.** The Internet can be an escape from feelings of depression, but too much time online can make things worse. Internet addiction further contributes to stress, isolation and loneliness.
- Other addictions. Many Internet addicts suffer from other addictions, such as drugs, alcohol, gambling, and sex.
- Lack of social support. Internet addicts often use social networking sites, instant messaging, or
  online gaming as a safe way of establishing new relationships and more confidently relating to
  others.
- 'Unhappy teenager'. You might be wondering where you fit in and the Internet could feel more comfortable than real-life friends.
- **Being less mobile or socially active.** For example, you may be coping with a new disability that limits your ability to drive. Or you may be parenting very young children, which can make it hard to leave the house or connect with old friends.
- **Stress.** While some people use the Internet to relieve stress, it can have a counterproductive effect. The longer you spend online, the higher your stress levels will be.

# Other Risks and correlations

#### Internet Addiction and ADHD

Researchers from the study published in the *Archives of Pediatrics & Adolescent Medicine* determined that teens with significant ADHD symptoms are at high risk for becoming addicted to the Internet

#### Internet Addiction and Hostility

The study indicated that male teens with significant hostility were more likely to become addicted to the Internet than those teens not characterized as hostile. For teens considered hostile, the Internet allows them to express their hostility and engage in violence through such activities as online gaming.

#### Internet Addiction and Depression

Individuals with depression were found to have a higher risk of Internet addiction. The study's researchers determined that this was likely because the Internet can be used to alleviate depression through social support, achievement, the pleasure of control and a virtual world in which to escape from emotional difficulties. However, too much Internet use can worsen the symptoms of depression and make depressed teens particularly vulnerable to developing an Internet addiction.

#### Internet Addiction and Social Phobia

As with depression, individuals with social phobia are more likely to become addicted to the Internet. Researchers believe this is because the Internet can provide social support in a non-face-to-face setting, allowing teens with social phobia to feel more relaxed and engaged. The researchers warned, however, that becoming too reliant on the Internet for social support could result in an online addiction.

# **Video Games**

(Designed to getcha' hooked...)



# Children

(Focused on Play/Not fully developed)



**Childhood Risk Factors** 

# ADDICTION???

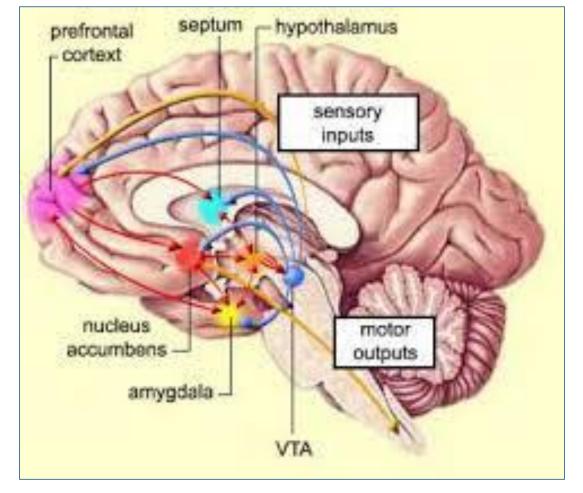
# What is ADDICTION?

### Addiction is characterized by:

- Inability to consistently Abstain;
- •Impairment in **B**ehavioral control;
- Craving; or increased "hunger" for rewarding experiences;
- <u>Diminished recognition of significant</u>
   <u>problems</u> with one's behaviors and interpersonal relationships;
- A dysfunctional <u>E</u>motional response.

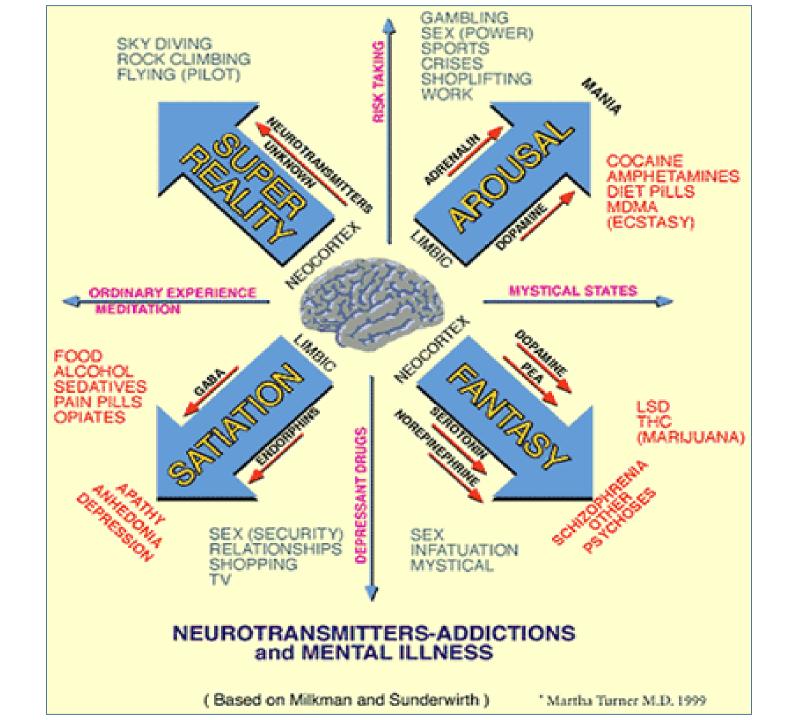
# What is ADDICTION?

- Addiction is a state that is characterized by compulsive use or compulsive engagement in rewarding behavior despite adverse consequences.
- **Disease** is fundamentally a condition of substantial and prolonged *dis*-ease (suffering), accompanied by significant degrees of physical, social, or vocational impairment (incapacity).
- "Our whole life and thinking was centered in drugs in one form or another—the getting and using and finding ways and means to get more. We lived to use and used to live." (NA)
- "...restless, irritable and discontented..." when not drinking. (AA)



Addiction provides a shortcut to the brain's reward system by flooding the nucleus accumbens with dopamine.

The hippocampus lays down memories of this rapid sense of satisfaction, and the amygdala creates a conditioned response to certain stimuli.



DSM-IV		ı	DSM-5		
Any 1 = ALCOHOL ABUSE	Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to alcohol use; alcohol-related absences, suspensions, or expulsions from school; neglect of children or household.  Recurrent alcohol use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by alcohol abuse).  Recurrent alcohol-related legal problems (e.g., arrests for alcohol-related disorderly conduct).  **This is not included in DSM-5**		Alcohol is often taken in larger amounts or over a longer period than was intended. (See DSM–IV, criterion 7.)		
			There is a persistent desire or unsuccessful efforts to cut down or control alcohol use. (See DSM–IV, criterion 8.)		
			A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects. (See DSM–IV, criterion 9.)		
	Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the alcohol (e.g., arguments with spouse about the consequences of intoxication, physical fights).	4	Craving, or a strong desire or urge to use alcohol.  **This is new to DSM-5**	The presence of at least 2 of these symptoms indicates an Alcohol Use Disorder (AUD).	
	Tolerance, as defined by either of the following:     A need for markedly increased amounts of alcohol to achieve intoxication or desired effect     Markedly diminished effect with continued use of the same amount of	5	Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home. (See DSM–IV, criterion 1.)		
Any 3 = ALCOHOL DEPENDENCE	Withdrawal, as manifested by either of the following:  a) The characteristic withdrawal syndrome for alcohol  b) Alcohol is taken to relieve or avoid withdrawal symptoms	6	Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol. (See DSM–IV, criterion 4.)	The severity of the AUD is defined as:	
	Alcohol is often taken in larger amounts or over a longer period than was intended.		Important social, occupational, or recreational activities are given up or reduced because of alcohol use. (See DSM–IV, criterion 10.)  The presence of 2 to 3 symptoms		
	There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.	8	Recurrent alcohol use in situations in which it is physically hazardous. (See DSM–IV, criterion 2.)	Moderate: The presence	
	A great deal of time is spent in activities necessary to obtain alcohol (e.g., driving long distances), use alcohol, or recover from its effects.		Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol. (See DSM–IV, criterion 11.)	eymptome	
	Important social, occupational, or recreational activities are given up or reduced because of alcohol use.		Tolerance, as defined by either of the following:  a) A need for markedly increased amounts of		
			alcohol to achieve intoxication or desired effect		
			b) A markedly diminished effect with continued use of the same amount of alcohol (See DSM–IV, criterion 5.)		
	Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., continued drinking despite recognition that an ulcer was made worse by alcohol consumption).		Withdrawal, as manifested by either of the following:		
			b) Alcohol (or a closely related substance, such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms. (See DSM–IV, criterion 6.)		

#### **DSM-5** Diagnostic Criteria: Gambling Disorder

(The only **BEHAVIORAL** Diagnosis)

- 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:
  - Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
  - Is restless or irritable when attempting to cut down or stop gambling.
  - · Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
  - 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).
  - Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed).
  - After losing money gambling, often returns another day to get even ("chasing" one's losses).
  - · Lies to conceal the extent of involvement with gambling.
  - Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling.
  - Relies on others to provide money to relieve desperate financial situations caused by gambling.
- The gambling behavior is not better explained by a manic episode.
- Specify if:

**Episodic:** Meeting diagnostic criteria at more than one time point, with symptoms subsiding between periods of gambling disorder for at least several months.

**Persistent:** Experiencing continuous symptoms, to meet diagnostic criteria for multiple years.

- Specify if:
  - **In early remission:** After full criteria for gambling disorder were previously met, none of the criteria for gambling disorder have been met for at least 3 months but for less than 12 months.
  - **In sustained remission:** After full criteria for gambling disorder were previously met, none of the criteria for gambling disorder have been met during a period of 12 months or longer.
- Specify current severity: Mild: 4–5 criteria met. Moderate: 6–7 criteria met. Severe: 8–9 criteria met.

# DSM V Section 'Conditions for further study' – Internet Gaming Disorder

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 when Internet gaming is taken away. (These symptoms are typically described as 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 the participation in Internet games.
- 5) Loss of interests in previous hobbies and entertainment as a result of, and with the exception of, Internet games.
- 6) Continued excessive use of Internet games despite knowledge of psychosocial problems.
- 7) Has deceived family members, therapists, or others regarding the amount of Internet gaming.
- 8) Use of Internet games to escape or relieve a negative mood (e.g., feelings of helplessness, guilt, anxiety).
- 9) Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of participation in Internet games.

Severity: Mild, Moderate or Severe.

# Internet Addiction Disorder (IAD)

Internet Addiction, otherwise known as computer addiction, online addiction, or Internet addiction disorder (IAD), covers a variety of impulse-control problems, including:

- **Cybersex Addiction** compulsive use of Internet pornography, adult chat rooms, or adult fantasy role-play sites impacting negatively on real-life intimate relationships.
- **Cyber-Relationship Addiction** addiction to social networking, chat rooms, texting, and messaging to the point where virtual, online friends become more important than real-life relationships with family and friends.
- **Net Compulsions** such as compulsive online gaming, gambling, stock trading, or compulsive use of online auction sites such as eBay, often resulting in financial and job-related problems.
- **Information Overload** compulsive web surfing or database searching, leading to lower work productivity and less social interaction with family and friends.
- **Computer Addiction** obsessive playing of off-line computer games, such as Solitaire or Minesweeper, or obsessive computer programming.

# What to look for in children...

- Loses track of time while online
- Sacrifices needed hours of sleep to spend time online
- Falls asleep in school
- Isolation from family and friends
- Becomes agitated or angry when online time is interrupted
- Checks email several times a day
- Becomes irritable if not allowed access to the Internet
- Spends time online in place of homework or chores
- Prefers to spend time online rather than with friends or family

# What to look for in children...

- Disobeys time limits that have been set for internet usage
- Bargaining and defensive about Internet and gaming use
- Lies about amount of time spent online or "sneaks" online when no one is around
- Forms new relationships with people he or she has met online
- Seems preoccupied with getting back online when away from the computer
- Loses interest in activities that were enjoyable before he or she had online access
- Becomes irritable, moody or depressed when not online
- An impairment of decision-making ability

# Physical effects

- Carpal Tunnel Syndrome (pain and numbness in hands and wrists)
- Dry eyes or strained vision
- Back aches and neck aches; severe headaches
- Sleep disturbances
- Pronounced weight gain or weight loss

### Have you ever heard this from a child....

"...when I grow up, I want to be a video game tester ...because then you get to play video games **ALL DAY** LONG!!!"



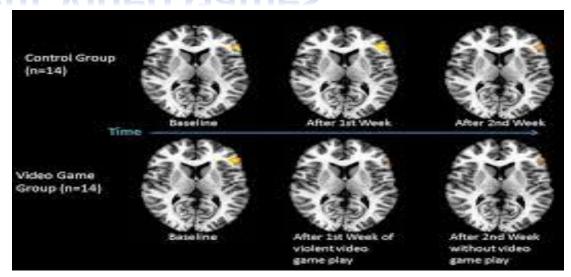


#### **Internet addiction test** – IAT (Dr. Kimberly Young)

Young found at least 5 or more answers of yes to these 8 criteria sufficient for internet addiction (Young 1998).

- 1. Do you feel preoccupied with the Internet (think about previous on-line activity or anticipate next on-line session)?
- 2. Do you feel the need to use the Internet with increasing amounts of time in order to achieve satisfaction?
- 3. Have you repeatedly made unsuccessful efforts to control, cut back, or stop Internet use?
- 4. Do you feel restless, moody, depressed, or irritable when attempting to cut down or stop Internet use?
- 5. Do you stay on-line longer than originally intended?
- 6. Have you jeopardized or risked the loss of significant relationship, job, educational or career opportunity because of the Internet?
- 7. Have you lied to family members, therapist, or others to conceal the extent of involvement with the Internet?
- 8. Do you use the Internet as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)?

#### Violent Video Games



- "For the first time, we have found that a sample of randomly assigned young adults showed less activation in certain frontal brain regions following a week of playing violent video games at home," Yang Wang, assistant research professor in IU's Department of Radiology and Imaging Science, says in a news release. "The affected brain regions are important for controlling emotions and aggressive behavior."
- After the second week, consisting of no video gaming, these changes returned closer to baseline levels.

Remove the electronic self stimulatory, distracting electronics from the child's bedroom!

Dr. Christakis (a member of the American Academy of Pediatrics' Council on Communications and Medial Executive Committee') offered the following advice to parents:

>>> Do not put a computer in your child's room. Instead, computers should be in an area (common area) of the home where you can easily monitor what your child is doing online <<<

## Tantrum versus Meltdown

#### **Tantrum**

- A) Driven by a want or goal
- B) Usually its because they want something
- C) Child checks to make sure you are paying attention to the behavior.
- D) Child acts this way in front of an audience.
- E) Once the child gets what they want, the behavior will end abruptly.
  - F) No Autonomic Nervous System signs. When goal is achieved, child returns to normal activity in under 5 minutes.

#### Both

Screaming Kicking Shouting Stomping Swearing Biting Throwing Hitting

#### Meltdown

- A) Driven by a reaction to something.
- B) A reaction to overload or feeling overwhelmed.
  - C) Child does not care if anyone is paying attention.
  - D) Behavior will continue even without an audience.
  - E) There is no goal. The behavior will only cease once the child has calmed down or when a loved one has helped them to regain control.
  - F) Autonomic Nervous System signs seen which are not under the child's control such as red ears, sweating, flatulence, dilated pupils. Will take 45-60 minutes to return to normal activity.

- Talk with your child about his/her excessive computer usage.
- Limit the amount of time children can spend online. Differentiate between use that is school-related vs. purely entertainment based.
- Set a password for the computer so that only you can log on to it.
- Encourage other interests and social activities.
- Set a time limit on the amount of time your child can spend on the computer each day.
- Earning of computer time.

- First, tell your child his time limit and see if he's able to stick to the limit himself.
- If he can't control his time on the computer on his own (which, if his addiction is serious, will likely be the case), start using a timer. Once the timer goes off, your child has to get off the computer.
- Set a time limit on the amount of time for yourself in order to be a good role model. If your kids see you following your own rules, then they will be more likely to follow.
- Buy or download a program that restricts computer use

(**Note:** Windows 7 and the newer computer systems allow you to set time limits to control when a certain account can be used).

#### POTHOLES TO WATCH FOR...

- >"....Just 5 more minutes..."
- >"...let me save the game..."
- "...wait till the next check point or I'll lose everything I worked for..."

#### Parents...you are ENABLING when you...

- Cover for a child when he misses school due to gaming
- Complete homework for him to avoid bad grades
- Allow meals to be eaten while gaming
- Dismiss deteriorating school performance and lack of interest in other activities as unrelated to gaming
- Take care of the child's responsibilities at home
- Lie to family or friends about just how much he is playing computer games

## Greatest times of danger...

- Immediately upon returning home from school or work
- Immediately after dinner in the early evening
- -Weekends

### General time frames

- A 7-year old may be permitted 1.5 hours of play on Saturday and Sunday mornings.
- A 15 year old may be permitted 1 hour of use during weeknights after homework and other responsibilities have been attended to. Perhaps this is extended to 2 hours per day on the weekend.
- A single 20-year old student may allow himself to play in the evenings 10:00 - 11:30 after studying.
- A married man with children may schedule 1 hour of play in the evenings from 10:00 11:00 only after the children are asleep.

### Older children/teens

## Cognitive Behavioral Therapy for Internet Addiction (CBT-IA)

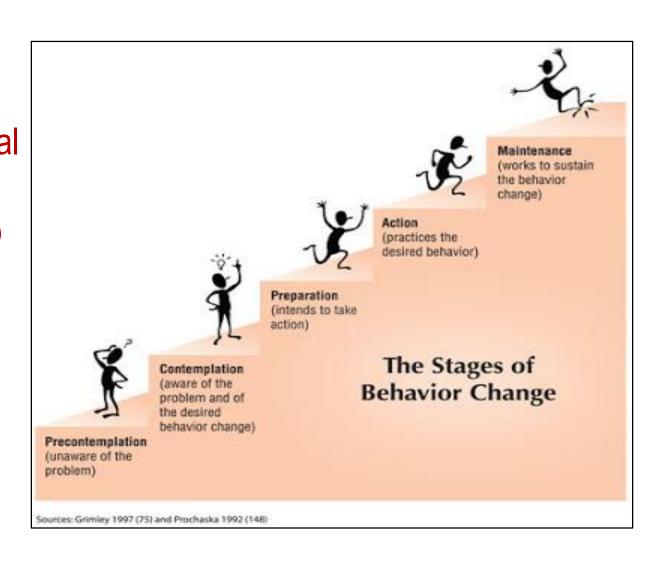
- **1.** In the first stage you focus on reducing the time you spend online (Practice the opposite, external stoppers, goal setting)
- **2.** The second phase looks a lot more like traditional cognitive behavioral therapy

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"I'm bored"
"It is stress, not the games"
"Everyone relaxes, right?"
"All the other kids are playing!"
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**3.** The third phase of CBT-IA is called Harm Reduction Therapy (This might include relationship problems, depression, occupational problems, social problems, or even psychiatric issues).

#### Motivational Interviewing

**Motivational** interviewing is a directive and clinical oriented approach that is used to help discover the ambivalence of behaviors and analyze them to finally achieve changing of the behavior.



#### Sense of loss with addiction recovery...

We feel a sense of loss whenever deprived of something that we are attached to. We grieve:

- The thing itself and the quick, easy sense of relaxation or euphoria it provided
- The old support system
- Rituals
- Loss of freedom which is replaced by accountability
- Sense of self which became defined by the activity

Processing loss with children is very fluid – sometimes short in duration and sometimes extended in duration

#### 12-Step Support/medication

- On-Line Gamers Anonymous (OLGA)
- On-Line Gamers Anon (OLG-Anon)
- Internet and Technology Addiction Anonymous (ITAA)
- ■Buproprion, in particular, has appeared to offer help to some addicts by inhibiting norepinephrine and dopamine reuptake. A six-week trial showed that those taking the drug experienced fewer cravings to play video games.
- Treating any underlying depression anxiety social anxiety, etc.

## Thank you!

# Questions, Comments?

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