

Love Addiction: Definition and Dx Criteria (Reynaud et al., 2010)

4. Persistent desire or fruitless efforts to reduce or control this relationship.
5. Pursuit of the relationship despite existence of problems created by this relation.
6. Existence of attachment difficulties, as manifested by:
 - a) Repeated exalted amorous relationships without any durable period of attachment; or
 - b) repeated painful amorous relationships characterized by insecure attachment.

Love Addiction: Prevalence & Correlates

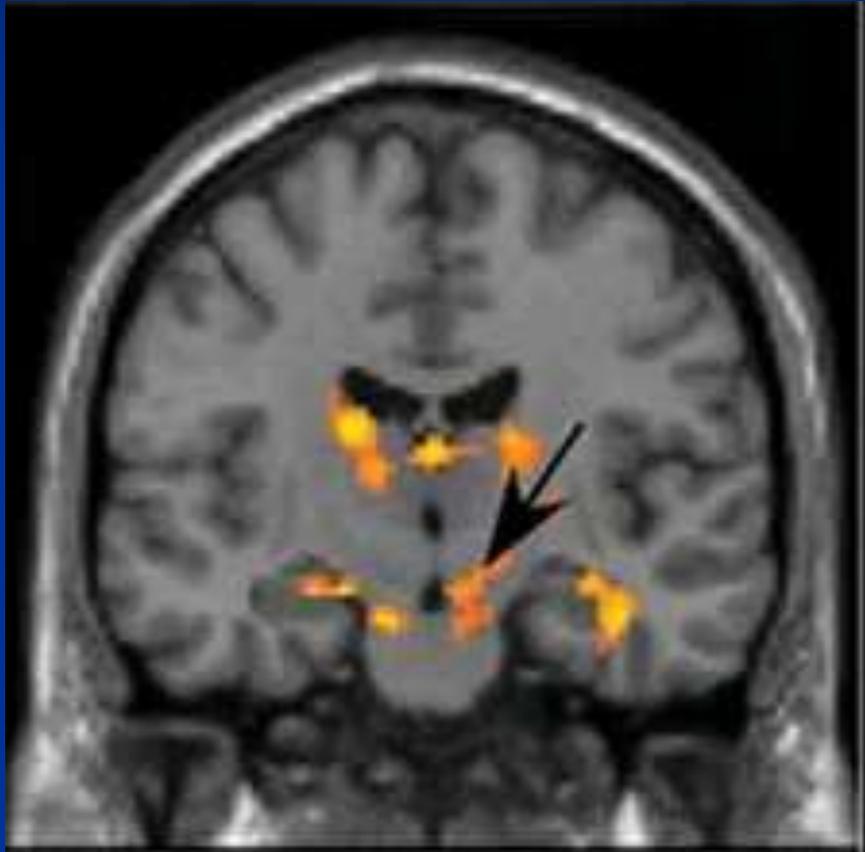


- # of lifetime romantic love relationships in the U.S. estimated at 3-5 per person--range from wks to years in duration
- Prevalence of lifetime LA = 5-10% (Timmreck, 1990)—dubious
- Correlates/Comorbidities:
- anxiety/depressive disorders, BPD, persons with tendencies to overly idealize love objects and/or with anxious-ambivalent attachment styles
- Consequences:
- persistent desire to cut back/reduce love seeking behavior, suicidal acting out when love is rejected

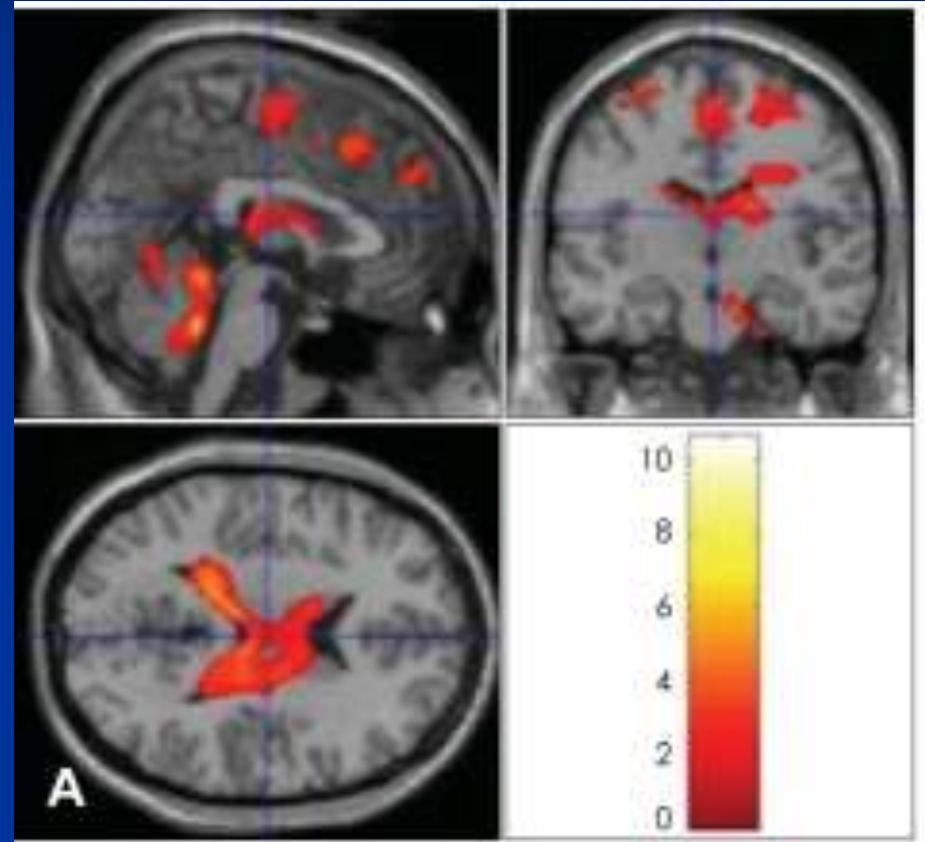
Love Addiction: Etiology

- Little known about genetic/environmental determinants
- People who are intensely in love show activation in the right VTA—these activations suggest that DA reward pathways contribute to romantic love
- Other studies show deactivation in brain areas associated with negative emotionality, social judgment, and mentalizing (assessing other people's intentions/emotions)
- Studies of heart-broken persons show reversed symmetry, with increase mentalizing

Images of Love?

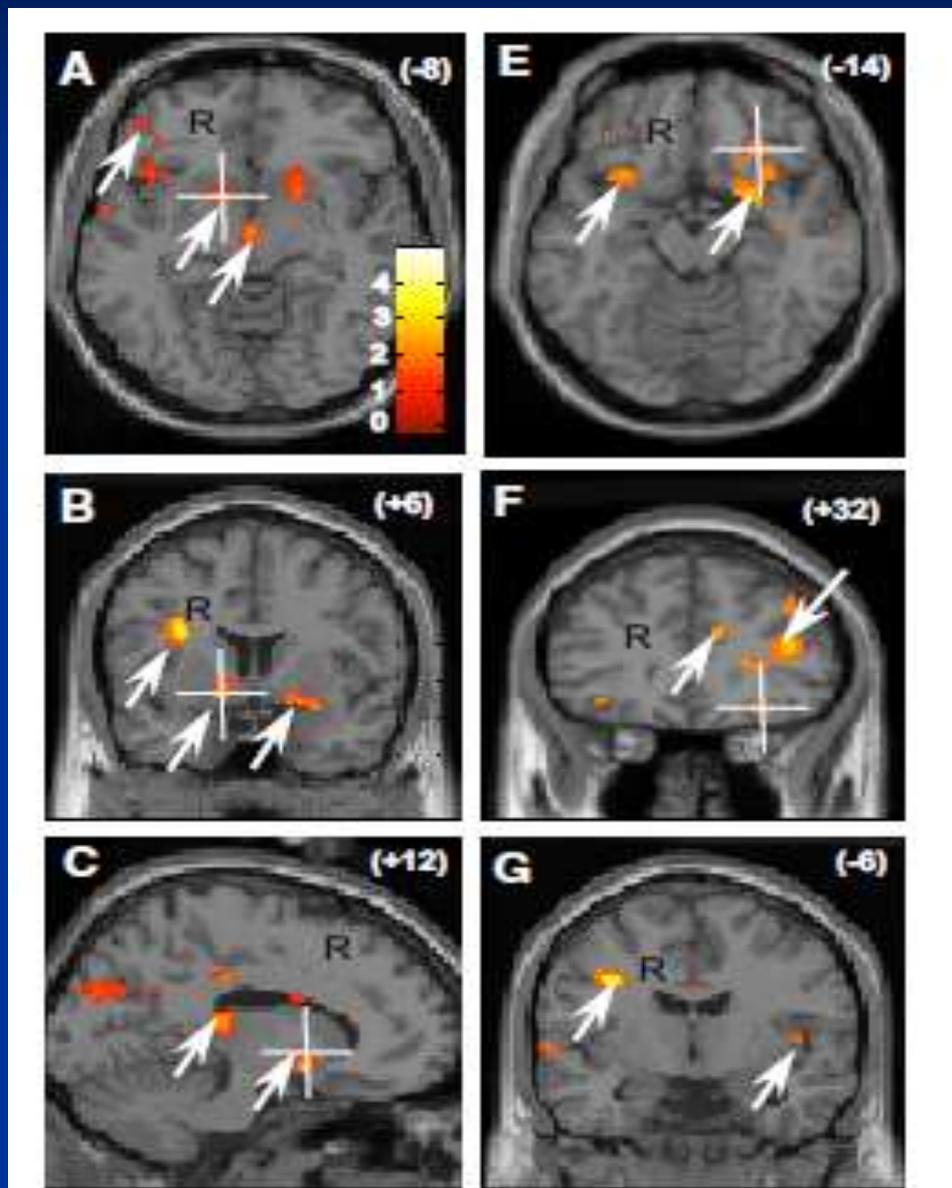


(Fisher et al., 2005)



(Kim et al., 2009)

Images of Heartbreak?



(Fisher et al., 2010)

Love Addiction: Screening and Assessment

- Feeney & Noller's (1990): 2-factor, 12-item, 5-point, Love Addiction Scale
- Hunter et al.'s (1981): 20-item, 4-point, Love Addiction Scale
- Hatfield & Sprecher's (1986): Passionate Love Scale
- None replicated/validated

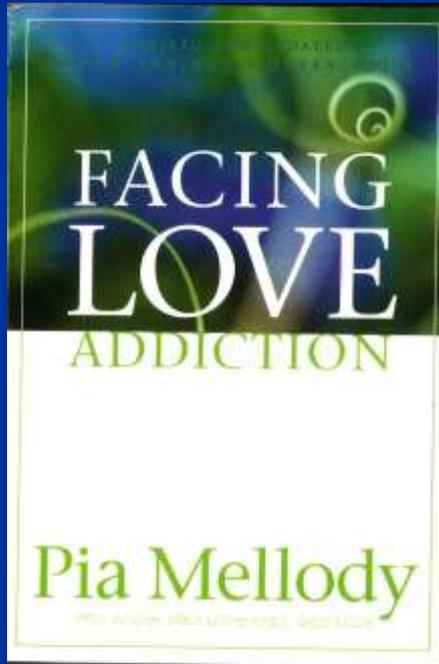
Love Addiction: Screening and Assessment

Typical items:

- Do you get high from romance?
- Do you feel desperation or uneasiness when you are away from your lover?
- Do you feel like you are not really alive unless you are with your romantic partner?

Love Addiction: Treatments

- Few studies
- Self-help: Sex and Love Addicts Anonymous
- 1-very brief Spanish report of group therapy—18 sessions of CBT showing + effects
- Consider: bibliotherapy and prevention approaches that educate youth about characteristics of healthy relationships, mindfulness interventions

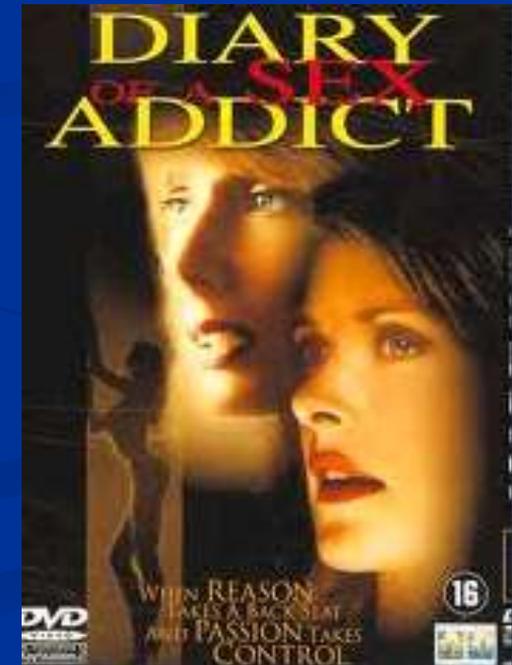
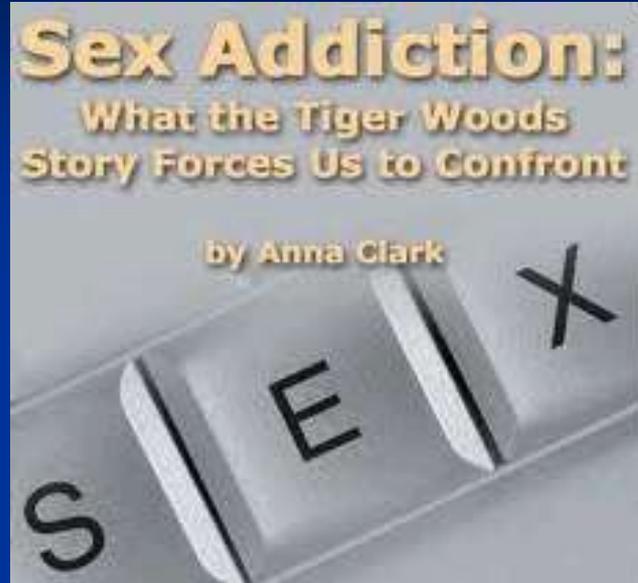
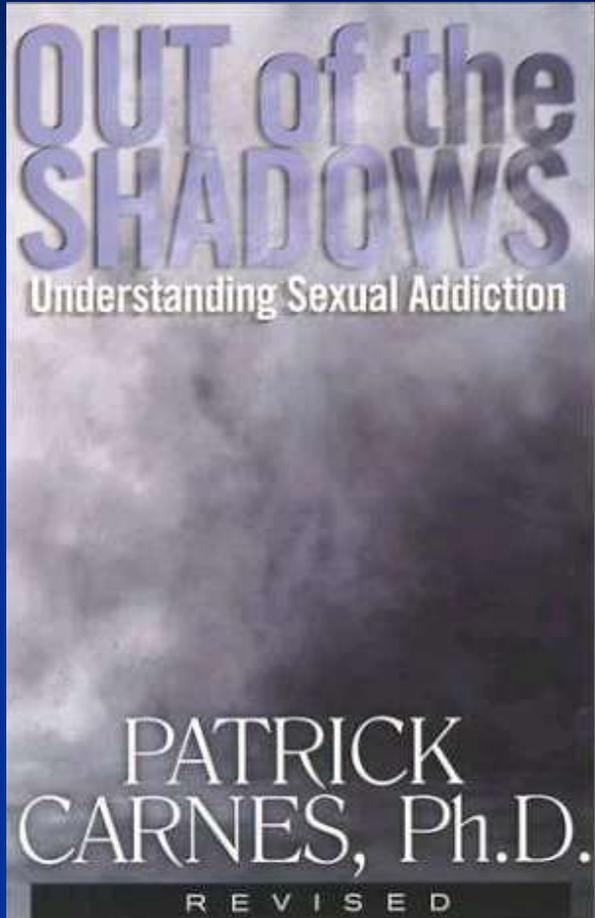


Love Addiction: Future Directions

We need to:

1. clarify how LA is similar to/different from DPD, BPD, codependency, sex addiction, etc.
2. identify risk factors for LA
3. Study the epi, psychiatric comorbidity, neurobiology, prevention, and tx of LA

Sex Addiction



Case Study 1

- Mr. X. was a married man who first presented at age 24 seeking help for a “sexual addiction” which “has consumed my entire life.” He feared losing his marriage and job, was spending many hrs/day on the internet chatting w/potential sex partners, viewing pornography, engaging in extended masturbation sessions, and occasionally meeting cyber contacts for unprotected sex.

Case Study 1 (cont)

- Had first been exposed to his grandfather's "dirty" magazines at 10 and by his late teens was frequently engaging in telephone sex via 900 numbers and was preoccupied with pornography.
- Came from a religiously conservative background and had a current history of binge drinking.

Case Study 1 (cont)

- Initial treatment with an SSRI (Zoloft) decreased depression, irritability, and poor self-esteem, but did not help with obsessive preoccupation with sexual behaviors
- Once Naltrexone was added to treatment regimen, patient experienced a dramatic reduction in sexual obsessions and acting out and eventually achieved nearly complete remission over 3-years, although his marriage remains unhappy.
- Bostwick & Bucci (2008) *Mayo Clinic Proceedings*

Case Study 2

- Turkish report of a 21-year-old woman who was referred to a psychiatric clinic for help. She was very shy, a high school graduate, and sought help for her compulsive masturbating.
- She masturbated 15-16 times a day while fantasizing about men and felt the need to take a bath after each occasion of masturbation--this left her feeling exhausted and depressed.
- *Gulsun et al. (2007), Clin Drug Investigation*

Case Study 2 (cont)

- She partially succeeded in controlling these periods of masturbation, but then commenced randomly calling men to have sexual conversations with them nearly 20 times, on average, a day.
- After these conversations, she felt regret, her self-esteem was diminished, and she began to bite her nails severely.

Case Study 2 (cont)

- No family psychiatric hx; father a warm man, mother cold and controlling
- 3 months of Clomipramine (Anafranil) did not help with the sexual compulsion sx's, but the addition of valproic acid (Depakote) produced immediate benefits and after one month compulsive masturbation and phone calling behavior abated almost entirely.

Sexual Addiction: Terminology

- Hypersexual Disorder
- Nonparaphilic Sexual Desire Disorder
- Compulsive Sexual Behavior
- Hyperphilia
- Hyperactive Sexual Desire Disorder
- Sexual Compulsivity or Sexual Impulsivity

Sexual Addiction: Terminology

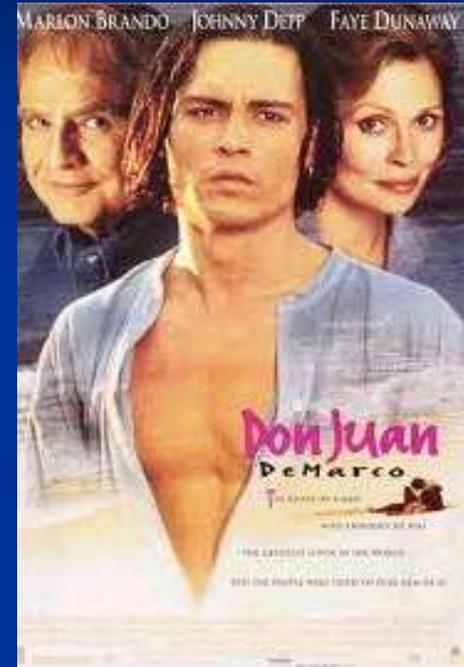
- Paraphilias: obsessive preoccupation with a socially unconventional/proscribed sexual behavior that involves nonhuman objects, children, or sadomasochism.
- Nonparaphilic hypersexuality: involves excessive sexual behavior of a conventional nature.

Sexual Addiction: History

- Described since antiquity
- Lack of research and consensus as to conceptualization
- Kraft-Ebbing described the 1st case in Europe in 1886
- Kinsey defined the Total Sexual Outlet (TSO) criterion in 1948

Sexual Addiction: History

- DSM-III (Psychosexual Disorder not Elsewhere Classified—Don Juanism, Nymphomania)
- DSM-III-R (Sexual Disorders Not Otherwise Specified)
- DSM-IV (Sexual Disorders NOS, 302.90)
- ICD-10 (Excessive sexual drive—subtypes of Satyriasis and Nymphomania)



Sexual Addiction: Recent Papers

- “Female Sexual Compulsivity: A New Syndrome”
- “Women and the Web: Cybersex Activity and Implications”
- “Sexually Compulsive/Addictive Behaviors in Women: A Women’s Healthcare Issue”
- “Women’s Sexual Addiction and Family Dynamics, Depression, and Substance Abuse”

Sexual Addiction: Diagnostic Criteria

Goodman et al. (Modified DSM-IV Criteria)

- A. Recurrent failure to resist impulses to engage in a specified sexual behavior
- B. Increasing sense of tension immediately prior to initiating the sexual behavior
- C. Pleasure or relief at the time of engaging in the sexual behavior



Sexual Addiction: Diagnostic Criteria

- D. At least 5 of the following criteria:
1. Frequent preoccupation with sexual behavior or with activity that is preparatory to sexual behavior.
 2. Frequent involvement in sexual behavior to a greater extent or over a longer period than intended.
 3. Repeated efforts to reduce, control, or stop sexual behavior
 4. A greater amount of time spent in activities necessary for engaging in sexual behavior or for recovering from its effects
 5. Frequent involvement in sexual behavior when the subject is expected to fulfill occupational, academic, domestic, or social obligations

Sexual Addiction: Diagnostic Criteria

6. Important social, occupational, or recreational activities given up or reduced because of the behavior
 7. Continuation of the behavior despite knowledge of having a persistent or recurrent social, financial, psychological, or physical problem that is caused or exacerbated by the sexual behavior
 8. Tolerance: need to increase the intensity or frequency of the sexual behavior in order to achieve the desired effect, or diminished effects obtained with sexual behavior of the same intensity
 9. Restlessness or irritability if unable to engage in sexual behavior.
- E. Some symptoms have persisted for at least 1 month or have occurred repeatedly over a longer period of time

Sexual Addiction: Prevalence and Natural History

- No population-based studies have been undertaken using standardized criteria
- Prevalence estimated at 3-6%, with an estimated sex ratio of 5:1
- Limited data suggest onset during late adolescence
- A Swedish population-based study of 2450 adults found that 7.6% of men and 6.8% of women met criteria for hypersexuality (a 6-variable composite measure).

Sexual Addiction: Correlates, Characteristics & Comorbidities

- *Correlates of hypersexuality*: younger age, > STDs, and greater likelihood of having consulted a professional (+ hx of sexual abuse & past-year psychiatric care for women)
- Dysphoria/depression when attempting to discontinue sexual behavior
- Mood dxs in a majority and ~40% with SUDs and ANX dxs
- Risk-taking and sensation-seeking temperaments

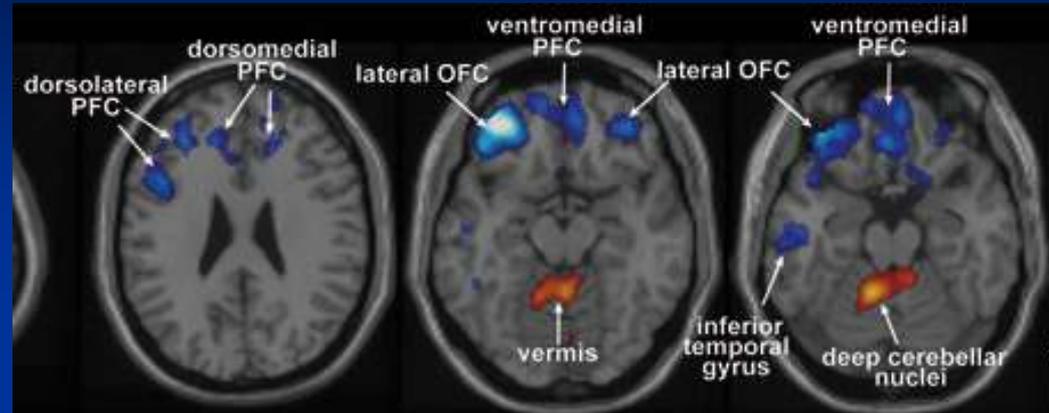
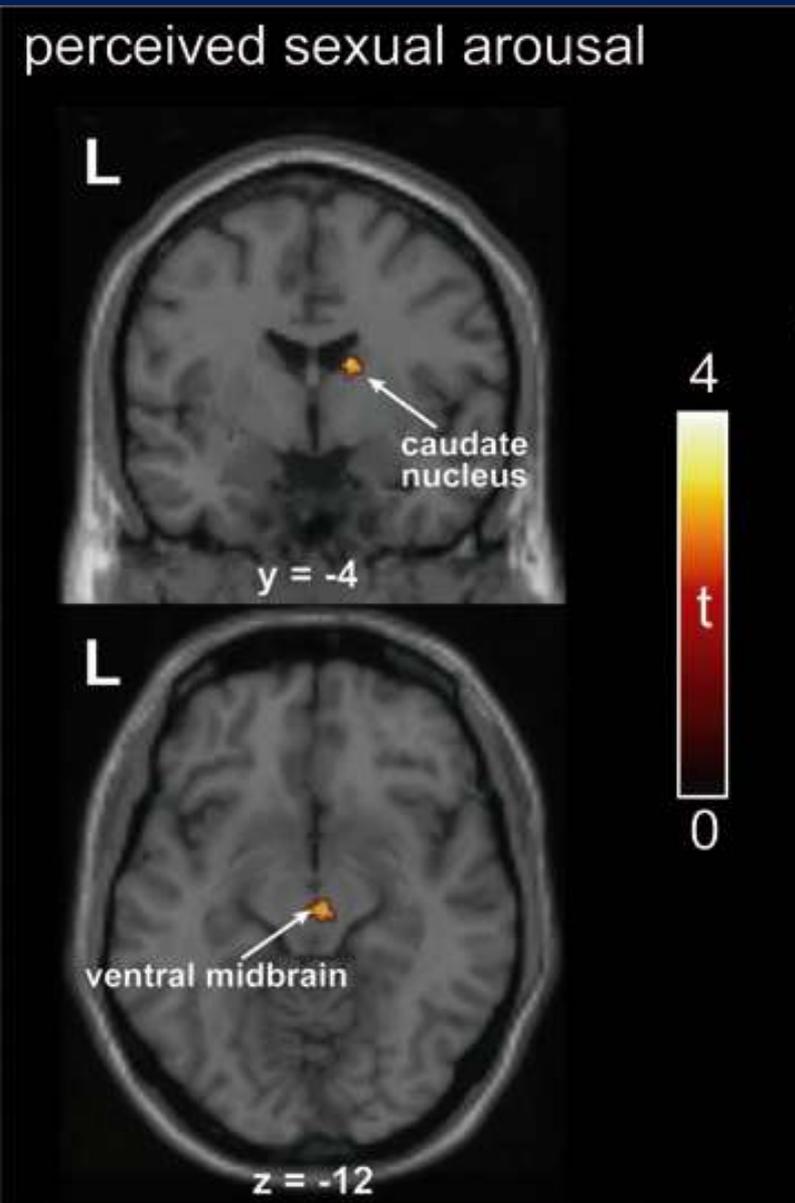
Sexual Addiction: Correlates, Characteristics & Comorbidities

- Genital injuries and STDs common
- Involvement in varied forms of sexual excess: frequent masturbation, pornography addiction, cybersex, telephone sex, sexual behavior w/consenting adults
- Sxs: Craving for, compulsive engagement in, impaired control over, and continued excessive sexual behavior despite adverse consequences

Sexual Addiction: Etiology

- No genetic studies
- Brain injured patients with PFC and bilateral lesions of temporal lobe show hypersexuality /disinhibition—Pick's, AD, multiple sclerosis
- Castrated men/men with hypogonadism generally show reductions in sexual desire
- DA, serotonin, and androgenic hormones appear to play a role in hypersexual behavior
- Orgasm associated with strong activation of VTA

Orgasm in Women (Georgiadis et al., 2006)



Orgasm was associated with

- Deactivation of prefrontal cortex
- Activation of dopaminergic brain centers

How similar is this to the appetitive addictive response?

Sexual Addiction: Screening and Assessment

- See Hook et al. (2010)—Measuring Sexual Addiction and Compulsivity: A Critical Review of Instruments--reviews 17 extant instruments. The authors suggest using:
- Compulsive Sexual Behavior Inventory- Control Scale (28-items total), which measures ability to control sexual behavior—good psychometrics/face validity
- The Sexual Compulsivity Scale—10-item, 4-point scale that yields a total score—2 factors –social disruptiveness and personal discomfort
- The Sexual Addiction Screening Test for Women is not currently recommended & requires further study

Sexual Addiction: Screening and Assessment

- PATHOS (Carnes et al., 2012) *Am Soc Addiction Medicine*
- Do you often find yourself preoccupied with sexual thoughts? (Preoccupation)
- Do you hide some of your sexual behavior from others? (Ashamed)
- Have you ever sought help for sexual behavior you did not like? (Treatment)

Sexual Addiction: Screening and Assessment

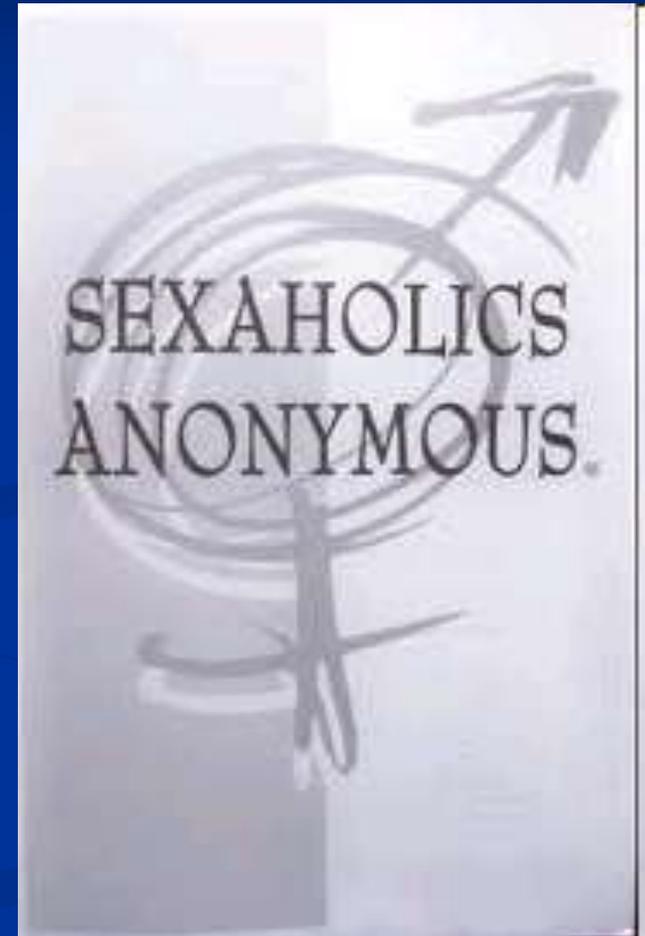
- 4. Has anyone ever been hurt emotionally because of your sexual behavior? (Hurt Others)
- 5. Do you feel controlled by your sexual desire? (Out of Control)
- 6. When you have sex, do you feel depressed afterwards? (Sad)

Sexual Addiction: Treatment

- No EBPs or tx guidelines-few RCTs—1 supportive of citalopram
- Other SSRIs—anecdotal, case, and open-label reports of effectiveness
- Anecdotal/case reports suggest that lithium, tricyclics, buspirone, Topamax, atypical antipsychotics, and naltrexone may be effective in some cases
- Antiandrogens such as cyproterone and MPA can reduce sex drive, fantasies, and behaviors at low doses
- CBT to identify triggers and skills for coping with negative affect, etc.

Sexual Addiction: Treatment/Self-Help Groups

- Sexaholics Anonymous
- Sex Addicts Anonymous
- Sexual Recovery Anonymous
- Sex and Love Addicts Anonymous
- Sexual Compulsives Anonymous
- S-Anon Family Groups

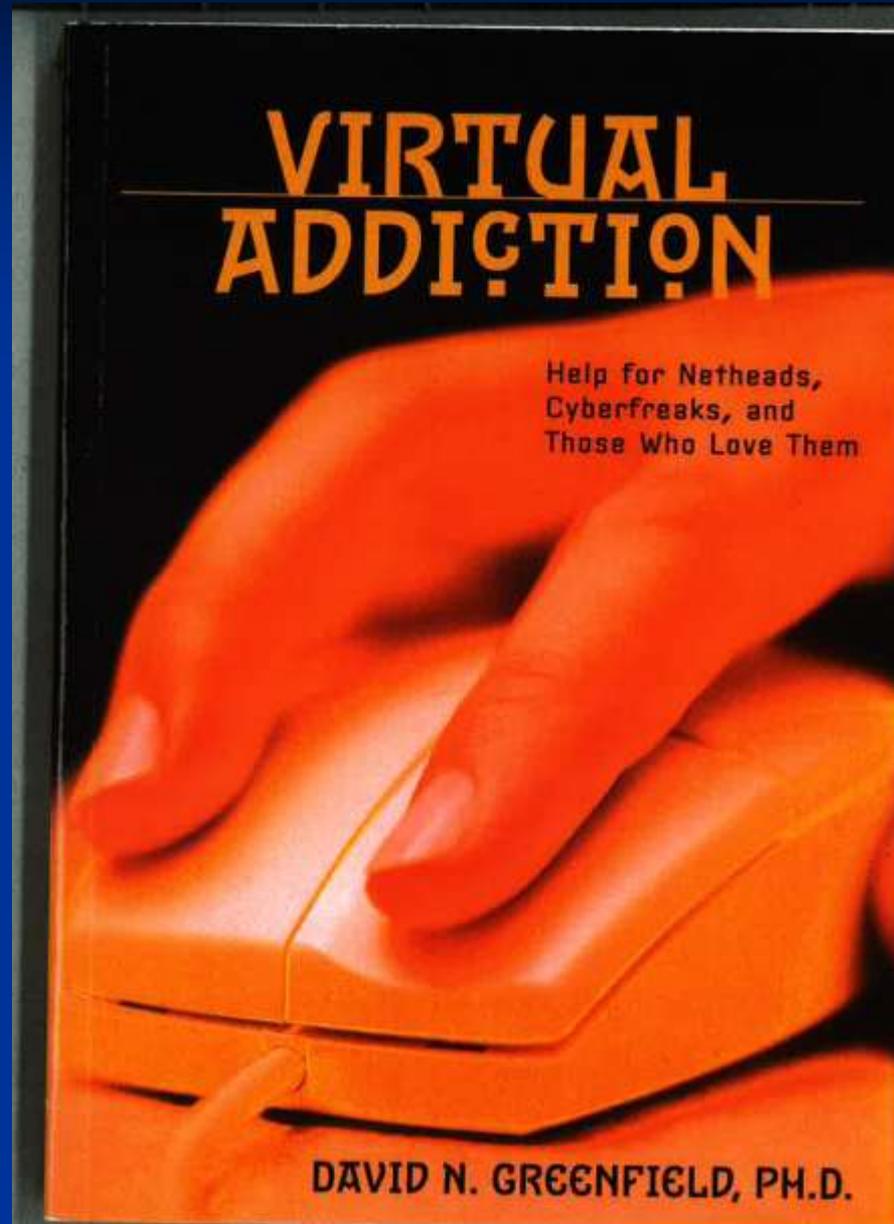


Sexual Addiction: Future Directions

Need to:

- Standardize and validate dx criteria/Where should SA go in DSM-5 if anywhere
- Examine gender differences in prevalence and presentation
- Identify correlates, comorbidities, and consequences of SA
- Conduct RCTs of promising treatments

Internet Addiction



Internet Addiction: Terminology and History

- Problematic Internet Use, Excessive Internet Use, Internet Addiction, Compulsive Internet Use, Pathological Internet Use, Internet Dependency, Pathological Use of Electronic Media
- References to “computer addiction” first emerged in the 1980s
- Approximately 60% of U.S. homes have 1+ computers & internet service

Internet Addiction: Definitions

- Excessive or poorly controlled preoccupations, urges or behaviors regarding Internet use that lead to impairment or distress (Weinstein & Lejoyeux, 2010)
- Non-chemical or behavioral addictions which involve human-machine interactions (Liu & Potenza, 2007)
- Compulsive computer use that contributes to personal distress, or social, occupational, financial, or legal consequences (Shaw & Black, 2008)

Internet Addiction: Diagnostic Considerations

- Individuals can use the internet in service of other addictions (sexual, buying) or become addicted to the internet itself—a distinct disorder?
- No standardized criteria included in DSM-IV (ICD-NOS)
- Internet offers interactivity, anonymity, and virtual social interactions, which may be appealing to persons with particular personality (shyness) and psychopathologic features (e.g., social anxiety)
- Distinguish addictive from normal computer use and from excessive computer use during manic episodes

Case 1

- Solmaz et al. (2011) describe a case of a 16-year-old in his 1st year of high school who failed his classes due to spending 20+ hours /day on the internet, 2-yrs of continuous use of the internet w/o a day off, and periods of intense anxiety/anger when his father forbid him to use internet.
- *General Hospital Psychiatry, 33, e15-e16.*

Case 1 (cont)

- Use of the internet was the “most important thing in his life” and his functioning in all other life areas was compromised as a result.
- Tx consisted of a peer counselor who helped reinforce exercising and other appropriate non-internet-based social behavior and team sports along with sertraline, carbamazepine, and risperidone. Good outcome at 12 months.

Case 2

- Bowen & Firestone (2011) report 3 cases of “pathological use of electronic media” including the case of a:
 - 24-year-old Caucasian man w/hx of abuse/marginal psychosocial functioning, ADHD/CD in childhood, 10th ed + GED, weight gain to 335 lbs, reversal of sleep/wake cycle, abuse of alc+mj, a 7-year hx of internet addiction including intense gaming, internet

Case 2 (cont)

- pornography, and blogging. He slept little, was unemployed, work hx was limited to episodic manual labor. Problem first developed at age 17 when he was unemployed from his seasonal construction job and became consumed with the internet/video games. Suffered from dysthymia and his internet addiction is ego-dystonic.
- Psychiatric Quarterly, 82, 229-238.



Internet Addiction: Screening Questions

- Do you feel overly preoccupied with using your computer or accessing the Internet?
- Do you ever feel that your computer or Internet use is excessive, inappropriate or poorly controlled?
- Have your urges to use your computer or the Internet, or the usage itself, ever been overly time consuming, caused you to feel upset or guilty, or led to serious problems in your life (e.g., financial, legal, relationship loss)?

Internet Addiction: Proposed Diagnostic Criteria

Young (2007): 5+ criteria:

- A. Is preoccupied with the internet (thinks about previous online activity or anticipates next online session)
- B. Needs to use the Internet with increased amounts of time in order to achieve satisfaction
- C. Has made unsuccessful efforts to control, cut back, or stop Internet use.
- D. Is restless, moody, depressed, or irritable when attempting to cut down/stop Internet use
- E. Has stayed online longer than originally intended.
- F. Has jeopardized or risked loss of a significant relationship, job, educational, or career opportunity because of the internet
- G. Has lied to family members, therapist, or others to conceal the extent of involvement with the Internet
- H. Uses the Internet to escape from problems or to relieve dysphoric mood.

Internet Addiction: Subtypes

1. Cybersexual Addiction: fantasy role-play chat room, pornography
2. Cyber-Relational Addiction: virtual adultery and over-involvement in online relationships
3. Net Compulsions: online gambling, shopping, stock trading
4. Information Overloaders: data base searching, web surfers
5. Computer addiction: computer games

Internet Addiction: Prevalence

- 9 studies of community samples, 4 online surveys
- Variable findings, different samples, methods, & measures
- 11/13 studies suggest prevalence rates of 1-10%, with lower part of the range probably more accurate
- 50% of studies show rates in women = or > than those in men
- Onset of dx often in late 20s/early 30s following a decade of nonproblematic computer use

Internet Addiction: Correlates, Comorbidities, and Consequences

- *Correlates:*
- social isolation, activation of brain areas similar to SUDs when presented with relevant cues, academic failure, job losses, financial problems
- *Comorbidities:*
- Depression, dysthymia, bipolar spectrum dx, social phobia, suicidal ideation
- *Consequences:*
- sleep deprivation, musculoskeletal pain, marital/relationship problems

Internet Addiction: Rating Scales

- No gold standard
- Internet Addictive Behavior Inventory (32-items)
- Internet Addiction Test (20 items)
- Internet Behavior and Attitudes Scale (25-items)



Internet Addiction: Treatment

- No EBPs or tx guidelines
- A residential tx program (Restart) in Seattle
- Unlicensed training camps in China
- 1 promising CBT study with N =114; 1 promising open-label study of escitalopram; 1 promising open label study of methylphenidate

Pathological Gambling



Pathological Gambling: Definition and Prevalence

- “A maladaptive pattern of gambling behavior that may be associated with serious psychosocial and financial problems.”
- Prevalence usually presented at 1-2%, but recent studies with structured diagnostic assessments suggest a rate more like 0.5%-1.0%--1.0% seems appropriate
- 1/3 of PGs are women

Case Study 1

- 71-year-old man with no psychiatric hx, a hx of only minor recreational gambling, txed w/pramipexole for restless legs syndrome develops hypersexuality and PG 5 months after starting meds. D'Orsini et al. (2011). *Neurol Sci* 32, 707-709.
- SXs: loss of \$3,000/wk, preoccupation w/gambling, irritable when unable to gamble, loss of control over gambling, etc.

Case Study 1 (cont)

- Medication was discontinued and sx's of hypersexuality and PG abated rapidly.
- D'Orsi et al. (2011) describe another 15 case studies where treatment w/DA agonists resulted in PG and other ICDs. In all cases, discontinuation of the medication led to a reduction in PG.

Pathological Gambling: Clinical Characteristics

- Should be regarded as a unitary dimensional condition rather than discrete disorder
- PG prevalent in clinical populations but seriously underdxed
- Clinical features similar to SUDS: (e.g., repeated unsuccessful efforts to cut back/quit, tolerance/withdrawal sxes)

Pathological Gambling: Sex Differences

Female PGs:

- have < incomes than male PGs
- engage in fewer gambling activities and prefer games of chance (slot machines, bingo)
- start gambling years later than men, but show a telescoping progression
- are more likely to evidence depression, anxiety, and to gamble to relieve low mood
- Are more apt to seek tx, although most PGs never seek tx

Pathological Gambling: Consequences/Comorbidities

- Separation and Divorce
- Suicidal Ideation
- Recent national findings for women PGs in Canada found elevated rates of:
- depression, mania, panic attacks, alc dependence, social phobia, psychological distress, chronic bronchitis, fibromyalgia, migraines, and tx-seeking

Pathological Gambling: Correlates

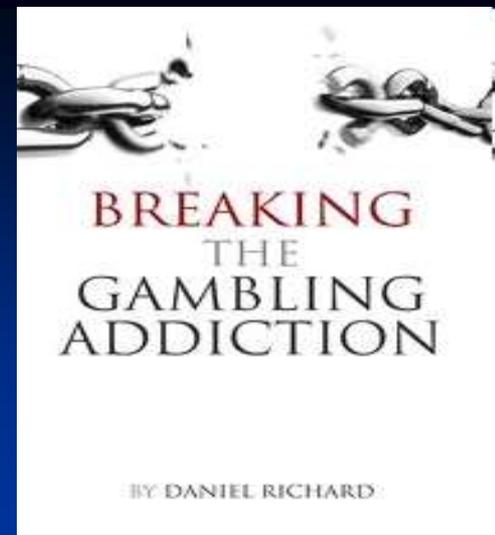
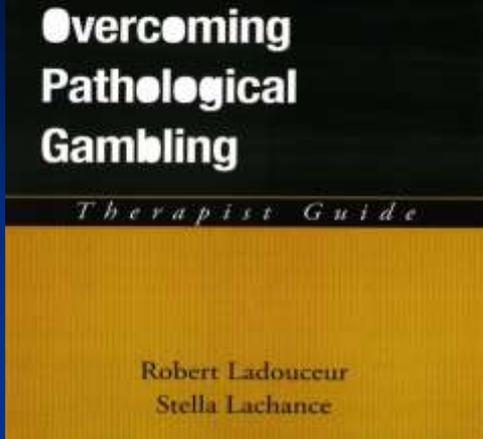
- Younger age, unemployed, on social welfare, living in larger city, low academic achievement, increase HR/arousal while gambling, earlier age at onset, psychiatric comorbidity, poor coping skills, high impulsivity, high sensation-seeking, executive functioning impairments and genetic factors

Pathological Gambling: Measures

- *South Oaks Gambling Screen*: 20 Y/N items,, 5+ score = probable gambling addiction, assesses emotional, family, social, occupational, educational, and financial consequences of PG and specific dimensions of PG itself.



Pathological Gambling: Treatments



- Mixed findings for SSRIs
- + findings in 4 placebo-controlled trials of opioid antagonists (naltexone, nalmefene)
- + findings for lithium in one study of PGs with manic sx's
- + findings in a meta-analysis of CBT for PG
- + findings for MET/MI txs
- + findings for GA
- Combined txs might be even more effective; consensus is that PG should be txed like an addiction

Binge Eating Disorder

- Recurrent episodes of binge eating (an amount of food that is much greater than most people would eat in a similar period of time under similar circumstances along with a sense of lack of control over eating during the episode) along with 3+ of the following 5 sxs”
- Eating much more rapidly than normal, eating until feeling uncomfortably full, eating large amounts of food when not feeling physically

Binge Eating Disorder (cont)

- hungry, eating alone because of feeling embarrassed by how much one is eating, feeling disgusted with oneself, depressed, or very guilty afterward.
- Also, marked distress regarding binge eating must be present and binge eating must occur at least once/week for 3 months and the BED is not accompanied by any compensatory behavior or other eating dx

Binge Eating Disorder (cont)

- Case Studies:
- “The Good Eater” by Ron Saxen
- “Born Round” by Frank Bruni

Conclusions

- Behavioral addictions and SUDs are prevalent in the general population, endemic in clinical pops, and frequency co-occur
- Behavioral addictions are generally untreated because clinicians have a low index of suspicion for them
- EBPs/tx guidelines are not available for many of these dxs but they should be screened for and addressed nonetheless
- The pace of behavioral addictions research has picked up dramatically--current knowledge is limited but this situation is likely to improve soon
- Failure to identify and tx SUDs and behavioral addictions has serious repercussions