PAETC HIV LEARNING NETWORK

Didactic Series

Sexual Addiction, Methamphetamines and HIV

Ildiko Kovacs MD
Department of Psychiatry/Owen Clinic
University of California San Diego
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What will we discuss today

- What is normal and hypersexual behavior?
- Definition of hypersexuality
- Psychosexual aspects
- Medical etiologies
- Drug use and hypersexuality
- Methamphetamine and HIV

How much sex is too much and who decides?

- Significant differences in sexual behavior among people
- Influencing factors: gender, age, culture, religion, relationship, general health, mental health, co-morbidities, psychological factors (confidence), substance use, etc.
- Society sets norms, morals and expected behaviors - no absolute answer
- Most people think there is a problem with hypersexuality only when there are tangible consequences (STD, legal, financial, relationship problems)

Male-female differences

Hypersexuality: male 5-10x > female

Men have:

- Higher intrinsic, spontaneous sexual drive
- More sexual fantasy
- More reactive to visual stimuli
- Higher masturbation rate
- More permissive to casual sex
- Faster arousability both physically and mentally
- Highly reliable, successful design to reach orgasm (rewarding)

Physiology

- Male sexual behavior depends on 2 distinct neurobiological processes.
- Appetitive/ incentive phase for preparation before coitus. Serotonin and dopamine play a major role
- Consummatory phase (erection , ejaculation, refractory phase) . Dependent on testosterone via the limbic system, spinal cord and genitals
- Frontal lobe regulates social inhibitions

The diagnostic criteria for Hypersexual Disorder

A. Over a period of at least six months, recurrent and intense sexual fantasies, sexual urges, and sexual behaviour in association with four or more of the following five criteria:

1. Excessive time is consumed by sexual fantasies and urges, and by planning for and engaging in sexual behavior.
2. Repetitively engaging in these sexual fantasies, urges, and behavior in response to dysphoric mood states (e.g., anxiety, depression, boredom, irritability).
3. Repetitively engaging in sexual fantasies, urges, and behavior in response to stressful life events.
4. Repetitive but unsuccessful efforts to control or significantly reduce these sexual fantasies, urges, and behavior.
5. Repetitively engaging in sexual behavior while disregarding the risk for physical or emotional harm to self or others.

B. There is clinically significant personal distress or impairment in social, occupational, or other important areas of functioning associated with the frequency and intensity of these sexual fantasies, urges, and behavior.

C. These sexual fantasies, urges, and behavior are not due to direct physiological effects of exogenous substances (e.g., drugs of abuse or medications) or to Manic Episodes.

D. The person is at least 18 years of age.

Specify if:

Masturbation, Pornography, Sexual Behavior With Consenting Adults, Cybersex, Telephone Sex, Strip Clubs, Other

Specify if:

In Remission

In a Controlled Environment

Source: http://www.dsm5.org

Hypersexual behavior

Multiple psychosexual aspects play role, usually in combination

- Obsessive-Compulsive aspects (fixation)
- Addiction aspect (tolerance, guilt, withdrawal)
- Elevated sexual desire (overwhelming urge)
- Sexual inhibition impairment (unable to control impulses, unable to resist and think about consequences)

Obsessive Compulsive Aspect

- Intrusive, repetitive sexual fantasies producing anxiety and tension but highly arousing at the same time. Sexual acting out is aiming to reduce these feelings without success, causing endless repetition.
- Eventually the acting out escalates causing negative self evaluation and more distress.
- Many patients have a ritualized, almost ceremonial sexual script that they act out.
- we see this type in specialized sexual behaviors (e.g. fetish) in paraphilias (exhibitionism, voyeurism, frotteurism)

Addiction aspect

- Probably a reward mechanism impairment
- “Chasing the first high”. Anticipating ecstasy but the experience disappoints. Frequency increases, promiscuity, tolerance develops. There is a need to elevate the experiences to “new highs”, riskier, more out of norm activities, dangerous situations etc.
- Interfering with life, job and relationship. Guilt, shame, emptiness, sometimes depression and isolation follows.
- There is a sense of loss of control, inability to cut back in spite of consequences (STD, financial loss when paying for it, public embarrassment, legal)

Addiction aspect (continued)

- Elevated sex drive aspect:

  Naturally very high sex drive that is overwhelming, leading to increased sexual activity that has a further kindling effect on some individuals. It causes personal distress, damaging romantic relationships

- Sexual inhibition impairment aspect:

  Spontaneous, unplanned sexual acting out when the opportunity presents itself even if there is a potential consequence for them or their partner . Risk taking for immediate pleasure: no condom, in public places, age inappropriate or indiscriminate partners, non-disclosure.

Etiology of hypersexual behaviors

- Organic**:**
  -traumatic brain injury (disinhibition)
  -intellectual impairment (MR)
  -dementia, tumor, temporal epilepsy, stroke
- Psychiatric:

  -mania (50% of manic patients)

  -borderline/ histrionic personality disorder (poor boundaries, attention)

  -hyperthymic temperament

  -depression and anxiety (sex used for self medication, mood alteration, stress relief)

  -PTSD (reenactment of the original trauma or regression into the trauma victim role --> repetition compulsion)

  -paraphilia (non-conventional sexual attractions)

Etiology of hypersexual behaviors (continued)

- hyper-dopamine states
  -Parkinson's disease while on Levodopa or dopamine agonists
  -Restless Leg Syndrome while on Ropinirol
- androgen level changes
  -testosterone abuse, DHEA use can increase libido sexual assertiveness but does not decrease impulse control
- metabolic problems: B12 deficiency, delirium
- substance use: amphetamine, GHB, cocaine, MDMA, alcohol
- Psychosexual: innately high libido, poor self control

Epidemiology

- The prevalence is substantially **higher in late adolescence and early adulthood** compared to middle or late adulthood.
(Cooper et al., 2000; Schwartz, Southern, 2000; Eisenman et al., 2004; Langstrom, Hanson, 2006; Kafka, 2010; Wright, McKinley, 2011)

- Data on gender are controversial (although they always show the highest % of males), going from **2:1** to **5:1** or more.
(Briken et al., 2007; Parsons et al., 2007; Kuzma, Black, 2008; Kafka, 2010; Skegg et al., 2010; Grov et al., 2010)

- Rates of sexual addiction are significantly more documented among **gay and bisexual** men in research on general population, and among **heterosexual** men when considering clinical population.
(Cooper *et al.*, 2000; Black, 2000; Missildine *et al.*, 2005; Grov *et al.*, 2010)

- Recent reviews report a prevalence between **3% and 6%.**
(Kingstone, Firestone, 2009; Kaplan, Krueger, 2010; Grov *et al.*, 2010)

Hypersexual behavior, hookup culture, sex on demand

Eradicating the development of intimacy before sexual act

- Sexual hookup apps: **grindr** (over 3 million daily users in 160 countries) also scruff, recon. They are anonymous, intent is clearly casual sex, geo-location specific (immediacy). Usually HIV non-disclosure, no protection, multiple partners. High risk for STDs, sexual injuries.
- Can specify if PNP (party and play)=get high together and have sex
- Combination of technology/sex/drugs makes it irresistible for many

Methamphetamine

- synthetic drug originally developed by Germans before WW2
- mechanism of action: dopamine reuptake inhibition + dopamine release from presynaptic neurons= massive dopamine flooding
- at least 10 million people tried in the US
- IV intense quick high, smoking longer lasting
- neurotoxic effect due to dopamine and serotonin neuron damage
- paranoia, compulsivity, aggression, long term: personality change, cognitive deficit

Why do people use methamphetamine for sexual enhancement: chemsex ?
(crystal, Tina, ice, chandelier, speed)

- causes behavioral disinhibition, cognitive dissociation, increased sensation seeking, sexual liberation, aphrodisiac effect, extended awake time
- meth use at circuit parties lasting for days or in bath house marathons cause prolonged hyperarousal.
- sexual arousal in general decreases judgement, prolonged hyperarosal removes fears and self protecting actions (no condom, no disclosure)
- increases self esteem(!) especially in patients who are uncomfortable with their sexual orientation
- increased bodily sensations in general and particularly anal sensitization

Etiology of hypersexual behaviors (continued)

- Side effect: Erectile Dysfunction. Most men use PDE5i, Caverjet (alprostadil,)Trimix injections
- Overall effect:
  decreased inhibition + fixation on sex + increased sensation lead to prolonged sexual encounters especially receptive anal sex and extreme practices (group sex, fisting etc), delayed or inhibited ejaculation.
- incorporating meth use into regular sexual activities -> it becomes part of the arousal (appetitive phase), conditioned. These patients get used to the hyper-arousal state and unable to have sex without it eventually

Methamphetamine use and HIV

- Increased risk for HIV seroconversion in methamphetamine users
- Most HIV+ patients start using meth years after living with HIV
- HIV + patients frequently use meth to cope with depression, fatigue and low libido related to HIV and HIV meds, fatalistic attitudes
- Methamphetamine is used as a payment for sex when meeting younger casual sex partners

Other sexually enhancing drugs

- **Molly:** advertised as the pure form of MDMA (ecstasy) mainly from China, in pill form, basically the same as Ecstasy ,commonly used at electronic dance events, causes euphoria, mild hallucinations, several recent deaths in US due to overheating, tachycardia, seizure

- **GHB:** Gamma-Hydroxybutyric acid. FDA approved for Narcolepsy. naturally occurring in the brain at very low doses. Causes sedation and euphoria. used orally as a powder or liquid. Frequently used by body builders, athletes on a daily bases

- **Ketamine (special K):** dissociative analgesic, unaware of the environment (the effect users seek), distortive hallucinations, (LSD like) works on the glutamate receptor, can cause delirium, respiratory collapse. The liquid formulation dried, then snorted or injected.

  – All three drugs are common in rave/ dance parties, frequently combined use

- **Calvin Kline**: cocaine + ketamine

- **Product 19:** MDMA + ketamine

Treatment

- Full cooperation, determination and honesty of the patient is needed. Must rely on patient report (no test to track patient behavior)
- High commercial interest, various private inpatient rehabs (sex and love addiction)
- Treatment of underlying psychiatric issues (depression, anxiety, trauma, personality D/O, drug use)
  1. SSRIs can be beneficial partially by decreasing libido, obsessionality, Seroquel or Depakote by decreasing impulsivity
  2. Natrexone to decrease craving
  3. Combination treatment seems best

Treatment (continued)

- Pychotherapy is absolutely necessary, especially cognitive behavioral therapy can be helpful
- Better outcome if in a relationship, relearning intimacy and sensuality by sensate focus, avoiding sexual intercourse at first
- 12 step program (SAA sex addict anonymous), rigid “all or nothing”- sobriety based model which is usually unrealistic about sexual life

Summary

- Hypersexual disorder is a growing problem due to easily available anonymous partners, porn, societal alienation
- Hypersexuality related to or enhanced by methamphetamine causes high risk behavior, very poor judgment, increased HIV risk
- HIV+ patients frequently chronically use meth as they are conditioned to it's aphrodisiac, disinhibiting effects and unable to be sexual without it
- psychiatric medications and therapy can decrease sexual acting out but only a loving/ healing relationship provides lasting benefits