Cocaine, Methamphetamine, and Compulsive Sexuality

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Prevalence

- Worldwide, amphetamine and MA are the most widely abused illicit drugs after cannabis
- According to the WHO, worldwide
  - Over 35 million people regularly abuse AMP & MA
  - Approximately 15 million use cocaine (mostly US)
  - Fewer than 10 million use heroin
Methamphetamine

- Production is cheap and easy and there is widespread access to the precursor chemicals (mainly ephedrine)
- Recipes for making MA can be readily found in underground publications and on the internet
- MA users spend 25% of what cocaine users pay for their drug supply
- MA users use more days per week and spend more time under the influence
Cocaine

- Plant derived
- Smoked, snorted, injected
- Most prevalent in western areas of the U.S.
- Used medically as a local anesthetic in some surgical procedures

Methamphetamine

- Synthesized, cheaper
- Smoked, snorted, injected
- Widespread prevalence, but more so in large metro areas than in rural areas
- Used medically to treat obesity and narcolepsy
## Euphoric Effects

**Cocaine**
- Intense “rush” when smoked or injected
- Less intense, more gradual effects when snorted
- High lasts up to 20-30 min and 50% of the drug is metabolized in 1 hour

**Methamphetamine**
- Intense “rush” when smoked or injected
- Less intense, more gradual effects when snorted or ingested orally
- High lasts from 8-24 hrs and 50% of the drug is metabolized in 12 hrs
Cocaine & Methamphetamine

Acute Effects

- Increased activity, wakefulness, and attention
- Increased body temperature, HR, and blood pressure
- Vasoconstriction leading to heart attack (MI) and stroke (CVA) even in absence of pre-morbid risk
- Grand mal type seizures with loss of consciousness
- Use during pregnancy can cause prenatal complications and premature delivery
Cocaine & Methamphetamine Prevalence

• MA has virtually replaced COC as the stimulant drug of choice in most areas of the U.S., except the northeast

• Use of MA, particularly in the form of “crystal meth” or “ice” has gained widespread popularity among gay men including in regions previously unaffected by the MA epidemic
Cocaine & Methamphetamine

Sexual Effects

- MA more likely to stimulate hypersexuality in both men and women
- More intense, extreme, and longer-lasting sexual behaviors with MA
- MA is less likely than COC to cause sexual dysfunction thereby increasing likelihood of MA users engaging repeatedly in high-risk sex behaviors
Issues of Heightened Concern About Methamphetamine Use

- Less tolerance develops to MA’s ability to increase libido and stimulate hypersexual behavior
- More anal sex, more unprotected sex, and greater number of sex partners in females and in gay men MA users
- Higher rates of HIV positivity in MA users
- Higher rates of IV use and sharing of injection apparatus in MA users
Issues of Heightened Concern About Methamphetamine Use

• A recent study* of gay and bisexual MA users in LA found that during the 12 months prior to entering treatment
  – 63% reported having anal sex without a condom
  – 56% reported having sex with someone who had HIV

Cocaine & Methamphetamine

Chronic Effects

• **Dependence** characterized by preoccupation, cravings, depression, anxiety, unstable moods, and continued use despite adverse consequences, but *no distinct physical withdrawal syndrome*

• **Psychotic** behavior characterized by paranoia, hallucinations, and mood disturbances.

• **Violent** paranoid behavior- more common among MA users

• **Formication**- delusions of insects creeping on the skin

• **Suicidal thoughts**
Chronic use of stimulant drugs often produces changes in affect, behavior, mood, and personality that mimic a wide variety of psychiatric disorders:

- Anxiety Disorders
- Depressive Disorders
- Bipolar Disorders
- Attention and Hyperactivity Disorders (ADHD)
Psychotic reactions are more common and often more intense, violent, and longer lasting with MA as compared to COC.
Cocaine & Methamphetamine
Reverse Tolerance

• Also known as brain *sensitization* or *kindling* which is unique to stimulant drugs
• With chronic use of stimulants, there is a lowering of the dose required to cause drug-induced psychotic reactions and these reactions occur sooner after drug use is resumed following a period of abstinence
Cocaine & Methamphetamine

*Increased Transmission Risk for HIV and Hepatitis C*

- Intravenous use more common with MA than COC
- High-risk sexual behaviors also more common and intense with MA than COC due mainly to greater impairment of sexual functioning with chronic COC than MA use
SEX-DRUG CONNECTION
Gay and Bisexual Men

• The group with strongest connection between MA use and high-risk sexual behaviors
• MA use associated with highest rates of unprotected sex as compared to other drugs
• Increased libido, multiple episodes of vigorous anal sex with anonymous partners, little or no concern about condom use
• HIV seropositivity rates are highest with IV use
SEX-DRUG CONNECTION
Gay and Bisexual Men

• Marathon sex binges (orgies) involving multiple partners
• MA has been described as a means of
  – overcoming sexual fears
  – being sexually connected
  – crossing psychological and social barriers or taboos around same-sex desire
  – temporarily counteracting the physical and mental debilitating and devitalizing of AIDS
MA USE and HIV Viral Load

- Recent study* of 230 HIV+ individuals comparing viral load (VL) in Current MA users, Former MA users, those who Never used MA
- Viral loads were directly related to MA use with Current users having the highest VL, Former users having the next highest VL, and those who Never used having the lowest VL

Ellis RJ et al. Increased human immunodeficiency virus loads in active methamphetamine users. *Journal of Infectious Diseases*, 188, 2003
MA USE and HIV Viral Load
(Ellis et al., 2003)

- MA users less likely to comply with antiretroviral therapy
- Among subjects who did comply, VL still significantly higher in Current and Former users
- Investigators suggest that MA use may reduce efficacy of antiretroviral therapy and/or increase replication rate of HIV virus
Cocaine & Methamphetamine Neurotoxicity

- MA is neurotoxic in animals ranging from mice to monkeys
- MA damages neurons that produce the neurotransmitters dopamine and serotonin
- MA doses taken by humans are comparable to those causing neurotoxicity in animals
- COC is not neurotoxic to dopamine and serotonin neurons
Cocaine & Methamphetamine
Patterns of Use

• Binge patterns or “runs” lasting days or weeks without sleep followed by cognitive impairment and extreme fatigue
• Often these binge patterns involve various types of sexual acting out behaviors and high-risk sex
• Use of alcohol, benzodiazepines, or other sedatives to “come down” from COC or MA
• Tolerance develops with repeated use leading to escalation of dose and often switching to a more intensive method of use (from snorting to smoking or iv use)
Cocaine & Methamphetamine
General Treatment Considerations

- Most effective treatments are cognitive behavioral interventions, especially in the early phases of treatment
- Aim to modify thinking, expectations, and behaviors and increase coping skills
- Motivation-enhancement techniques are crucial to facilitate treatment engagement and retention
- Recovery support groups (AA, CA, CMA) in conjunction with group/individual therapy and urine monitoring
Cocaine & Methamphetamine
General Treatment Considerations

• No effective pharmacological agents for treating dependence on stimulant drugs
• Recent study suggests that methylphenidate (Ritalin) might be helpful in treating cocaine addicts with ADHD
• Antidepressant medications can be helpful in reducing depressive symptoms in the early abstinence period, but do NOT prevent relapse to drug use
Cocaine & Methamphetamine Treatment Considerations

• **Treatment must** identify and address drug related sexual behaviors

• **Failure to do so contributes to chronic “reciprocal” relapses and exposure to sexually transmitted diseases**
Cocaine & Methamphetamine

Emergency Treatment of Overdose

• Ice bath to counteract hyperthermia
• Anticonvulsant drugs to control seizures
• Antianxiety and/or antipsychotic drugs to treat panic anxiety, extreme agitation, and psychosis
Information Sources

• National Clearinghouse for Alcohol and Drug Information (NCADI)
  www.health.org

• National Institute on Drug Abuse (NIDA) www.drugabuse.gov
COCAIN-SEX CONNECTION
Clinical Profile

- Seen mostly in male patients: 40 to 60%
- Fewer than 15 to 20% of female patients
- More extreme in smokers vs. snorters
- Almost always associated with a binge pattern where the user disappears for 1 to 3 days at a time
- Often overlooked in the initial clinical assessment
- Contributes to chronic relapse and treatment failure
- Contributes to spread of STDs
COCAINESEX CONNECTION
Clinical Profile

• Most common sexual behaviors
  – Compulsive masturbation
  – Anonymous sex (prostitutes, pickups)
  – Peep shows, porno movies
  – Internet and/or phone sex
COCAINE-SEX CONNECTION

Clinical Profile

- Intensifies shame, guilt, depression, suicide risk, and STD risk
- Often associated with depression, dysthymia, and bipolar disorder
- Often associated with compulsive spending and/or gambling (addictive coping style, impulse control disorders)
COCAINESEX CONNECTION

Clinical Profile

• Behavior becomes increasingly stereotyped and ritualistic
• Impaired sexual performance in chronic users further escalates the intensity of sexual fantasies and acting-out behaviors
• When sexual performance is totally eliminated by chronic cocaine use, sex becomes a purely mental/visual experience devoid of any physical contact with another person
SEXUAL BEHAVIORS QUESTIONNAIRE

• Is your cocaine use ever associated with sexual thoughts, feelings, fantasies, or behaviors?

• Roughly what percentage of your cocaine use episodes involve sexual thoughts, feelings, fantasies, or behaviors? (a) 0%  (b) 25%  (c) 50% (d) 75%  (e) 100%
SEXUAL BEHAVIORS QUESTIONNAIRE

• Does cocaine increase your sex drive?
• Does cocaine impair your sexual performance?
• Are you more likely to have sex when using cocaine?
SEXUAL BEHAVIORS QUESTIONNAIRE

- Are you more likely to have sex with a prostitute, pickup, other unknown partner, or someone other than your mate when using cocaine?

- Do you think that your cocaine has caused you to become preoccupied or obsessed with sex or made your sex drive abnormally high?
SEXUAL BEHAVIORS QUESTIONNAIRE

• Are you less likely to practice safe sex when high on cocaine? (e.g., not use condoms, be less careful about who you choose as a sex partner)

• When high on cocaine, do you perform certain sex acts that are atypical for you? (e.g., marathon masturbation, sadomasochistic sex, go to “peep” shows, cross-dress, voyeurism, expose yourself)
SEXUAL BEHAVIORS QUESTIONNAIRE

• Is your cocaine use so strongly associated with sex that it will be difficult for you to separate them from one another?

• In prior attempts to stop using cocaine, have sexual thoughts, feeling, and/or fantasies led to relapse?

• Are you concerned that if you stop using cocaine sex will not be (has not been) as interesting or pleasurable for you (or perhaps even boring)?
SEXUAL BEHAVIORS QUESTIONNAIRE

• Have sexual fantasies or desires ever stimulated your desire to use cocaine?

• Are you concerned that your sexual fantasies or desires will make it harder for you to stop using cocaine?
SEXUAL BEHAVIORS QUESTIONNAIRE

• Has your sexual behavior on cocaine caused you to question or have concerns about your sexual orientation?
• Has your sexual behavior on cocaine caused you to feel that you are sexually perverted or abnormal?
• Prior to getting involved with cocaine were you ever concerned that your sex drive was abnormally high or that you were preoccupied with sex?
SEXUAL BEHAVIORS QUESTIONNAIRE

• Prior to getting involved with cocaine were you ever concerned that your sex drive was abnormally **low** or that your sexual performance was inadequate?

• Do you want help with any cocaine-related sexual issues?
Sex-Drugs Survey

Subject Sample
321 Outpatients
New York & Los Angeles
Primary Substance Dependence
25-Item Questionnaire
## Subject Sample

\[ N = 321 \]

<table>
<thead>
<tr>
<th></th>
<th>Alcohol (N = 75)</th>
<th>Opiates (N = 138)</th>
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<tbody>
<tr>
<td>Male</td>
<td>41</td>
<td>94</td>
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<tr>
<td>Female</td>
<td>34</td>
<td>44</td>
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<table>
<thead>
<tr>
<th></th>
<th>Cocaine (N = 56)</th>
<th>Metamph (N = 52)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>38</td>
<td>34</td>
</tr>
<tr>
<td>Female</td>
<td>18</td>
<td>18</td>
</tr>
</tbody>
</table>
Q1: My sexual thoughts, feelings, and behaviors are often associated with use of these substances:
Q2: My sex drive is *increased* by use of these substances:
Q3: My sexual drive is decreased by use of these substances:
Q4: My sexual performance is *improved* by use of these substances:

- Alcohol
- Opiates
- Cocaine
- MA

Percent Responded 'Yes'

- Male: Alcohol (24), Opiates (19), Cocaine (18), MA (59)
- Female: Alcohol (32), Opiates (16), Cocaine (11), MA (61)
Q5: My sexual performance is **impaired** by use of these substances
Q6: My sexual pleasure is *enhanced* by use of these substances:

![Bar chart showing the percent of respondents who responded 'Yes' to using substances for sexual pleasure. The chart includes data for Alcohol, Opiates, Cocaine, and MA, with responses categorized by gender (Male and Female).]
Q7: My sexual pleasure is reduced by use of these substances:
Q8: My use of these substances has made me feel *obsessed* with sex and/or made my sex drive abnormally high.
Q9: Use of these substances has **reduced** my interest in sex and/or made my sex drive abnormally low.

![Bar chart showing the percentage of respondents who responded 'Yes' to each substance by gender.](chart)
Q10: I am more **likely** to have sex when using these substances:
Q11: I am more likely to have sex with an *unknown partner* or someone other than my primary mate when I am using these substances:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>44</td>
<td>21</td>
</tr>
<tr>
<td>Opiates</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Cocaine</td>
<td>55</td>
<td>17</td>
</tr>
<tr>
<td>MA</td>
<td>38</td>
<td>33</td>
</tr>
</tbody>
</table>
Q12: I am more likely to have “risky” sex under the influence of these substances (e.g., not use condoms, be less careful about who I chose as a sex partner, etc.)
Q13: I have been involved in sex acts that are unusual for me when under the influence of these substances:
Q14: My use of these substances is so *strongly associated* with sex that I believe it will be difficult for me to separate use of these substances from sex.
Q15: I am concerned that sex will not be as interesting or pleasurable—maybe even **boring**—without these substances.
Q16: Sexual fantasies or desires have triggered my use of these substances:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>27</td>
<td>32</td>
</tr>
<tr>
<td>Opiates</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Cocaine</td>
<td>47</td>
<td>11</td>
</tr>
<tr>
<td>MA</td>
<td>41</td>
<td>39</td>
</tr>
</tbody>
</table>
Q17: My sexual fantasies/desires make it more *difficult* for me to stop using these substances:
Q18: My sexual behavior under the influences of these substances has caused me to question my *sexual orientation*
Q19: My sexual behavior under the influence of these substances has caused me to feel sexually *perverted or abnormal*
Q20: My sexual behavior under the influence of these substances has resulted in feelings of depression.
Q21: My sexual behavior under the influence of these substances has resulted in feelings of shame/guilt
Q22: My sexual behavior under the influence of these substances has caused me to think about harming/killing myself
Q23: My sexual behavior under the influence of these substances has caused me to *plan* to harm/kill myself.
Q24: My sexual behavior under the influence of these substances has caused me to *attempt* to harm/kill myself.
Q25: I believe that I need *treatment* for my sexual behavior as it is linked to the following substances:
Conclusions & Implications

• Linkage between sex and substance use is strongly influenced by gender and by the specific substance being used
• Strongest linkage occurs with stimulants
• Weakest linkage occurs with opioids
• Overall, men show stronger drug-sex linkages than women
• Female methamphetamine users respond to questions about sexuality in male-like ways.
Conclusions & Implications

- Stimulants increase sex drive, fantasies, feelings, behaviors, and high-risk behaviors
- MA users report much stronger linkages with sex than do cocaine users
- Fewer cocaine users report aphrodisiac effects than do MA users
- Chronic use of cocaine as compared to MA causes more sexual dysfunction
- For women, the alcohol-sex connection is more powerful than for other substances
COCAINESEX CONNECTION

Psychodynamic Issues

• Sex is the person’s most important and
  overriding need (defines his being)
• Intimacy dysfunction- sex split off from intimacy
• Sexually rigid, repressive upbringing
• History of sexual abuse and victimization
• Feelings of sexual inadequacy
• Delayed sexual emergence in adulthood
• Premature/precocious sexual emergence
COCAINE-SEX CONNECTION

Psychodynamic Issues

• Misogyny, fear of women, women as expendable sex objects not individuals
• Homosexual men with intense dysphoria and self-loathing (internalized homophobia) about their sexual orientation
• Overtly heterosexual men who act out homosexual fantasies on cocaine often with “Half and Halfs” or “SheMales”- transvestites with breast implants and intact male genitalia
COCAINESEX CONNECTION

Psychodynamic Issues

• Impaired affect regulation
• Fragile sense of self, prone to narcissistic injury
• Personality disorders
  – Avoidant
  – Dependent
  – Narcissistic
COCAINESEX CONNECTION

Treatment Issues

- Establish safety and trust
- Offer reassurance: “Many people have this problem and treatment can work”
- Instill optimism and hope
- Empathize with the patient’s shame, guilt, and humiliation
Clinicians must feel comfortable in discussing sexual behaviors so that a client’s problems can be addressed without contributing to internalized feelings of shame and rejection.
COCAINESEX CONNECTION

**Treatment Issues**

- Identify specific triggers, scenarios, and rituals (ask for details)
- Identify specific consequences
- Address ambivalence/fears about giving up cocaine and addictive sex
- Ask the “Miracle Question”
COCAINE-SEX CONNECTION

Treatment Issues

• Address unrealistic hope to stop cocaine, but not sexual acting-out behaviors

• Negotiate realistic short-term goals:
  • Cessation of cocaine and other substance use
  • Sexual abstinence (“cooling off”) period, marked reduction in frequency, or substitution of less harmful or risky sex
COCaine-SEX CONNECTION

Treatment Issues

• Teach mood monitoring and craving control techniques
• Schedule frequent (2-3/wk) individual sessions during the early stabilization phase
• Group therapy with other cocaine-sex addicts can be extremely helpful
• SA, SCA and other 12-step programs
COCAINE-SEX CONNECTION

Treatment Strategies

• Assessment (Motivational Interviewing)
• Identify chain or sequence of specific drug-related sexual thoughts, feelings, behaviors
• Negotiate a treatment plan with specific goals and strategies for change
• Group therapy: All male and all female groups
• Individual therapy: Preparatory or concurrent
• Self-help groups (SA, SCA, SLA??)
• Urine monitoring