LGBT PERSPECTIVES IN ADDICTION MEDICINE

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New York Society of Addiction Medicine
9th Annual Conference
The New Yorker Hotel, New York City
Saturday, February 2, 2013

Outline

1. Lay of the Land
2. World Outside Tina
3. Basics of Crystal Methamphetamine
4. The HIV Connection
5. The Body Dysmorphic Complication
6. Treatments
7. Prevention
8. Bath Salts
Lay of the Land

Getting “High”

Use to “augment a hyperactive, restless lifestyle and an exaggerated need for self-sufficiency.”
Self-Medication of Excess Social Stress

- Discrimination
- Expectation or Perception of Discrimination
- Internalized Homophobia

Discrimination among LGB people

*Discrimination refers to discrimination that occurred prior to the past 12 months.
*p<0.05, ***p<0.001 based on logistic regression adjusting for sex, race/ethnicity, age, personal income, and sexual identity.

Courtesy of Sean McCabe, PhD.
## Addiction & Sexual Orientation

<table>
<thead>
<tr>
<th>Study</th>
<th>Sexual Orientation</th>
<th>LGB Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 1995 MIDAS</td>
<td>Identity</td>
<td>n = 73</td>
</tr>
<tr>
<td>2) 2000 NAS</td>
<td>Identity</td>
<td>n = 160</td>
</tr>
<tr>
<td>3) NHANES III</td>
<td>Behavior</td>
<td>n = 78</td>
</tr>
<tr>
<td>4) 1990-92 NCS</td>
<td>Behavior</td>
<td>n = 125</td>
</tr>
<tr>
<td>5) 1996 NHSDA</td>
<td>Behavior</td>
<td>n = 194</td>
</tr>
<tr>
<td>6) 2004-05 NESARC</td>
<td>Identity, Behavior, Attraction</td>
<td>n = 577, n = 1,266, n = 2,234</td>
</tr>
</tbody>
</table>

Courtesy of Sean McCabe, PhD.

## Sexual Identity

![Chart showing the comparison of substance use disorders among different sexual identities.](chart.png)

*Ref* 15.6, **p<0.01, ***p<.001 based on logistic regression analysis adjusted for race, age, educational level, personal income, employment status, relationship status, health insurance status, geographic location, MSA, age at alcohol onset, and family history of AOD problems. Reference group was “heterosexual” group.

Courtesy of Sean McCabe, PhD.
Only same-sex | Mostly same-sex | Equally both sexes | Mostly other sex | Only other sex

Women:
- 11.4%
- 9.6%
- Ref

Men:
- 24.2%
- 13.2%
- 25%
- 18.5%
- 15.7%

*p<0.05, **p<0.01, ***p<0.001 based on logistic regression analysis adjusted for race, age, educational level, personal income, employment status, relationship status, health insurance status, geographic location, MSA, age at alcohol onset, and family history of AOD problems. Reference group was “heterosexual” group.

Courtesy of Sean McCabe, PhD.
World Outside Tina

Ecstasy
Methylene-Dioxy-Meth-Amphetamine
Methylene-Dioxy-Methamphetamine

En.wikipedia.com
GHB
Gamma-Hydroxy-Butyrate
Gamma-Hydroxy-Butyric-Acid (GHB)

Cannabis
Tetrahydrocannabinol (THC)

Ketamine
Ketamine
Salvia Divinorum
Salvinorin A

Krokodil

4,5-α-epoxy-17-methylmorphinan-3-ol
The Flesh Eating Drug
### Desomorphine

![Desomorphine molecule](En.Wikipedia.org)

#### GOOD

<table>
<thead>
<tr>
<th></th>
<th>GOOD</th>
<th>BAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Empathy</td>
<td>Serotonin Loss</td>
</tr>
<tr>
<td>G</td>
<td>Sex</td>
<td>Death</td>
</tr>
<tr>
<td>THC</td>
<td>Euphoria</td>
<td>IQ Drop</td>
</tr>
<tr>
<td>K</td>
<td>Dissociation</td>
<td>Accidents</td>
</tr>
<tr>
<td>Salvia</td>
<td>Visions</td>
<td>Flashbacks</td>
</tr>
<tr>
<td>Krok</td>
<td>Pain Relief</td>
<td>Flesh Eating</td>
</tr>
</tbody>
</table>
3 Basics of Crystal Meth
Methamphetamine

\[
\text{CH}_3 - \text{CH} - \text{NH} - \text{CH}(\text{CH}_3) \rightarrow \text{C}_6\text{H}_5
\]
Epinephrine

Pseudoephedrine
**Natural Rewards and Dopamine Levels**

**Food**

- % of Basal DA Output
- Time (min): 0, 60, 120, 180
- Sample Number: 1, 2, 3, 4, 5, 6, 7, 8
- Empty, Box Feeding

**Sex**

- DA Concentration (% Baseline)
- Female Present

Adapted from: Di Chiara et al., Neuroscience, 1999
Adapted from: Fiorino & Phillips, J Neuroscience, 1997

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**Effects of Drugs on Dopamine Levels 1**

**MORPHINE**

- Dose mg/kg: 0.25, 0.5, 1.0, 2.5, 10
- % of Basal Release: 0, 100, 150, 200, 250, 300
- Time (hr): 0, 1, 2, 3, 4, 5

**COCAINE**

- % of Basal Release: 0, 100, 150, 200, 300
- Time (hr): 0, 1, 2, 3, 4, 5

**NICOTINE**

- % of Basal Release: 0, 100, 150, 200, 250
- Time (hr): 0, 1, 2, 3

**ETHANOL**

- % of Basal Release: 0, 100, 150, 200
- Dose (g/kg ip): 0.25, 0.5, 1.0, 2.5
- Time (hr): 0, 1, 2, 3, 4

Adapted from: Di Chiara & Imperato, Proceedings of the National Academy of Sciences USA, 1988; courtesy of Nora D. Volkow, MD.
Effects of Drugs on Dopamine Levels 2

AMPHETAMINE

% of Basal Release

0 100 200 300 400 500 600 700 800 900 1000 1100

0 1 2 3 4 5 hr

Adapted from: Di Chiara & Imperato, Proceedings of the National Academy of Sciences USA, 1988; courtesy of Nora D. Volkow, MD.
SOCIAL ACCEPTANCE OVER TIME

- Crystal Meth
- Online Dating

4 HIV Connection
The Basic Pathway

1. Crystal meth intoxication
2. Decreased inhibitions and judgment
3. Increased sensation seeking and extreme sexual arousal
4. Unsafe sex
5. HIV transmission

Levounis P and Ruggiero JS, Primary Psychiatry, 2006

Courtesy of Peter Stanley and the Crystal Meth Working Group, New York City.
Sildenafil and HIV

- Erectile dysfunction, i.e., the “crystal dick” problem.
- In 1998, sildenafil became commercially available.
- From 1999 to 2005, new diagnoses of HIV in men having sex with men increased by almost 18%.

Levounis P and Ruggiero JS, Primary Psychiatry, 2006

Crystal, Sex, and the Internet

- The Perfect Storm
- Sex, both virtual and real, both safe and unsafe, is only a click away.
- Variable Intermittent Reinforcement
The Lingo

- PNP = Party (drugs) and Play (sex)
- Chem Friendly = Drugs
- Barebacking = BB = Unprotected anal sex
- In the Raw = Unprotected anal sex
- To the Point = Intravenous use

and much more …
5

Body Dysmorphic Complication
One of the Somatoform Disorders

DSM-IV-TR Criteria

1. Preoccupation with an imagined defect in appearance.

2. The preoccupation causes significant distress or impairment.

3. The preoccupation is not better accounted for by another mental disorder.

DSM-5 (due in May 2013)

One of the Obsessive-Compulsive and Related Disorders
1. Preoccupation with one or more perceived defects or flaws that are not observable or appear slight to others.

2. At some point during the course of the disorder, the person has performed repetitive behaviors or mental acts in response to the appearance concerns.

Specify if:
Muscle dysmorphia form of BDD
(i.e., the belief that one’s body build is too small or is insufficiently muscular).

Indicate:
- Good or fair insight
- Poor insight
- Absent insight (i.e., delusional beliefs)
COMPULSIVE END – OCD

- Body Dysmorphic Disorder
- Anorexia Nervosa
- Depersonalization Disorder
- Hypochondriasis
- Tourette’s Syndrome
- Trichotillomania
- Autism
- Binge Eating
- Compulsive Buying
- Kleptomania
- Pathological Gambling
- Self-Injurious Behaviors
- Sexual Compulsions
- Borderline Personality Disorder

IMPULSIVE END – Antisocial PD
Face Recognition Experiments

Bindemann M, Experimental Psychology, 2007

Face Recognition in BDD

Jefferies K, J Obsessive Compuls Relat Disord, 2012
Treatments

People Recover

Volkow ND, J Neuroscience, 2001
Stages of Recovery

- **Withdrawal**  Day 1 to 15
- **Honeymoon**  Day 15 to 45
- **The Wall**  Day 45 to 90
- **Adjustment**  Month 4 to 6
- **Resolution**  Month 7 on

Obert JL: A Clinician’s Guide to Methamphetamine, Center City, MN, Hazelden, 2005

The Matrix Model

- **Group Psychotherapy**
- **Individual Counseling**
- **Family Therapy**
- **Contingency Management (CM)**
- **Crystal Methamphetamine Anonymous**
- **Treatment of Co-occurring Disorders**

Lee NK and Rawson RA, *Drug and Alcohol Review*, 2008
“There is pressure to show how life can be exciting in sobriety. Sobriety for the patient becomes a dreary foreign land, to which he feels exiled, sent away from the marvelous party by his own doing, and resenting the look of the new landscape. He wonders if the therapist’s life is one worth identifying with.”
**Sexual Identity Core Themes**

<table>
<thead>
<tr>
<th></th>
<th>Gay Patient</th>
<th>Straight Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gay Therapist</strong></td>
<td>Rapport vs. Over-Identification</td>
<td>Understanding vs. Shame</td>
</tr>
<tr>
<td><strong>Straight Therapist</strong></td>
<td>Trust vs. Mistrust</td>
<td>Openness vs. Isolation</td>
</tr>
</tbody>
</table>


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**The Case of Sertraline**

- Zoloft & CM
- Placebo & CM
- Zoloft & NO-CM
- Placebo & NO-CM

Shoptaw S, Drug Alcohol Depend, 2006

Please note: This agent is not approved by the FDA for use in methamphetamine dependence.
**Sertraline for Alcohol Dependence**

- Abstinence rates during a 14-week treatment trial with sertraline 200 mg QD.
- Sertraline helped Late-Onset alcoholics stay abstinent, but worsened the condition for Early-Onset alcoholics.


Please note: This agent is not approved by the FDA for use in alcohol dependence.

**Fluoxetine for BDD**

- BDD-symptom response rates during a 12-week treatment trial with fluoxetine ~80 mg QD.
- Fluoxetine helped both delusional and non-delusional subjects; however, no delusional patients responded to placebo.

Phillips KA, *Arch Gen Psychiatry*, 2002

Please note: This agent is not approved by the FDA for use in body dysmorphic disorder.
1. Provide state of the art addiction treatment.

2. Create an environment where gay people can openly discuss issues of drug use, sex, sexuality, and identity.

3. Outreach and advocacy in LGBT communities.
Primary Prevention

Secondary Prevention
HomoExtra (HX)

GAY MEN & CRYSTAL METH
a manifesto

[Text continues on the next page]
Cathinone (Khat)

\[
\text{[Chemical Structure]}
\]
Mephedrone
Winstock and Marsden, European Monitoring Centre for Drugs and Drug Addiction, 2010

Effects

![Graph showing average ratings for different effects and substances]

Winstock and Marsden, European Monitoring Centre for Drugs and Drug Addiction, 2010
The British Data

Summary
1. Lesbian, gay, bisexual, and transgender people are at higher risk of suffering from substance use disorder(s).

2. In the absence of real or expected discrimination, the risk is similar to heterosexuals.

3. Drugs, sex, and the Internet are a deadly recipe for HIV transmission.

4. Gay-affirmative treatment programs address addiction—as well as sexuality and identity.

5. Community involvement is the key to prevention.

6. Bath Salts are as pleasurable as ecstasy and as addictive as cocaine.

Thank You