Women and Stimulant Use

Healthy Steps to Freedom

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TEDS 2017 Primary Substance by Gender

Table 2.1b. Gender and age at admission among admissions aged 12 years and older, by primary substance use; percent distribution.
# Opioids Overdose Deaths by Gender (Females)

<table>
<thead>
<tr>
<th>Location</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>65%</td>
<td>35%</td>
</tr>
<tr>
<td>Idaho</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>Kansas</td>
<td>51%</td>
<td>49%</td>
</tr>
<tr>
<td>Nevada</td>
<td>54%</td>
<td>46%</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>Wyoming</td>
<td>48%</td>
<td>52%</td>
</tr>
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</table>
Opioids Overdose Deaths

*Young* Women

<table>
<thead>
<tr>
<th>Location</th>
<th>0 – 24</th>
<th>25 – 34</th>
<th>35 – 44</th>
<th>45 – 54</th>
<th>55+</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>10%</td>
<td>26%</td>
<td>23%</td>
<td>23%</td>
<td>19%</td>
</tr>
</tbody>
</table>

- Highest in **15-44 year old** women in the south.
- The highest rate of opioid-related emergency room visits was among those aged **25-44 years**.
State Admissions to Substance Abuse Treatment Services
TEDS 2004-2014
State Admissions to Substance Abuse Treatment Services (2018)
Sex & Gender Difference

• **Sex Difference**: based on biological factors, such as sex chromosomes and hormones
  - Women have a harder time quitting smoking than men do. Women metabolize nicotine, the active ingredient in tobacco, faster than men. Differences in metabolism may help explain why nicotine replacement therapies, like patches and gum, work better in men than in women. Men appear to be more sensitive to nicotine's pharmacologic effects related to substance use disorder.

• **Gender Difference**: based on culturally defined roles
  - Although men are more sensitive than women to nicotine's addiction-related effects, women may be more susceptible than men to non-nicotine factors, such as the sensory and social stimuli associated with smoking (e.g. greater sensitivity to visual and olfactory cues as triggers and greater concern about weight gain while quitting).

• **Sources**: ORWH, 2015; NIDA, 2002
Gender-Responsive

Considers gender norms, roles and inequalities and takes measures to address them – WHO

“Gender-responsive means creating an environment . . . that reflects an understanding of the realities of women’s lives and addresses the issues of the women.” Gender-responsive practice can improve outcomes for women offenders by considering their histories, behaviors, and life circumstances.

Bloom, Owen & Covington, 2003
Women’s Pathway to System Involvement

**Childhood Victimization**
Women's abuse as children can lead to mental illness and substance abuse.

**Unhealthy Relationships**
Women's dysfunctional intimate relationships can lead to victimization as adults, reducing self-efficacy and leading to mental illness and substance abuse.

**Social & Human Capital**
Women's needs in education, family support, self-efficacy, and relationships dysfunction can lead to employment and financial problems.

Can lead to crime and imprisonment.
Co-Occurring Disorders Women are More Likely to Suffer From

- **Major depression**: nearly *twice as likely* to suffer from major depression as men (OWH, 2009)

- **Anxiety**: rates of anxiety are *two to three times higher* in women than men. (OWH, 2009)

- **PTSD**: women are *two to three times more likely to* have PTSD than men (Kesler et al., 2005)

- **Eating disorders**: women suffer from *BN 10:1* compared to men, and *ED 4:1* (NEDA)
• Women and men use drugs for different reasons

• Women respond to drugs differently (SUD’s can manifest differently in women than in men)
Women are more likely to:

• **Experience pain**, including chronic pain (more likely to report);

• **Self-medicate** (physical, stress, anxiety)

• **Experience cravings**

• **Relapse**
• Women are more likely to experience chronic pain and use Rx opioid pain medications for longer periods and in higher doses. Back et al (2011), SAMHSA, N-SSATS (2014)


• Substance use develops into addiction more quickly in women than in men.
Women are more likely to:

• **Be prescribed opioids/medications:**
  - highest rate in reproductive age 18-44
  - ¼ privately insured women and 1/3 female Medicaid (CDC 2008-12 filled an opioid Rx)
  - middle class white women are more likely to be prescribed opioids than other races (physician bias that “assumes less risk”)

• **Engage in “doctor shopping”** (obtaining prescriptions from multiple prescribers)
Stimulants

- Methamphetamine
- Cocaine
- Ecstasy
- Nicotine
- Prescription for ADD/ADHD or narcolepsy
  - Concerta ® (methylphenidate)
  - Ritalin ® (methylphenidate)
  - Adderall ® (amphetamine/dextroamphetamine)
What Women Want!
Motivators for Methamphetamine Use

Source: Brecht et al., 2004
Methamphetamine & Women

- Linked to high rates of co-occurring depression in women

- Tend to begin using methamphetamine at an earlier age than do men, with female users typically more dependent on methamphetamine compared to male users.

- Less likely to switch to another drug when they lack access to methamphetamine

- More receptive treatment than men (methamphetamine & other substances)
Cocaine & Women

• In animal studies, females are **quicker to start taking cocaine**—and take it in **larger amounts**—than males

• **More vulnerable to the reinforcing (rewarding) effects of stimulants** (estrogen increases sensitivity)

• **More sensitive than men to cocaine's effects on the heart and blood vessels**

• Female cocaine users are also **less likely** than male users to exhibit **abnormalities of blood flow in the brain's frontal regions** (sex-related mechanism may be protective factor)
Adderall

• Used to treat ADHD
• Schedule II Drug
• High potential for abuse
• High potential for dependence
• Should be consumed only with a Rx
All Substances Reported by Prisoners Used for Weight Loss

- Ecstasy: 3%
- Alcohol: 3%
- Heroin: 4%
- Cocaine: 8%
- Prescription Pills: 12%
- Methamphetamine: 51%

Prisoners Used Drugs = 87%
Prisoners Used Drugs WL = 53%
Non-Prisoners Used Drugs WL = 4%

Lindsay, 2015
Gender-Responsive Strategies

Research shows that gender-responsive assessment and treatment are more effective at preventing recidivism and other crime-related outcomes than those that are “gender-neutral.”

Gobeil, Blanchette, & Stewart, 2016; Salisbury et al., 2016
Treatment Barriers

• Social or legal fears
• Child Care
• Work
• Home care and other family responsibilities
• Energy concerns
• Weight concerns
• Body dissatisfaction
Treatment Issues

• Weight Concerns & Body Composition
• Body Dissatisfaction & Thin-Internalization
• Eating Pathology
• Dieting & Metabolism
• Nutrition
• Physical Activity
• Cognitive Distortions
Weight Concerns

Perception of fat and weight based on societal influences; and the impact of body composition on use and relapse
A primary reason women use legal and illegal drugs (especially stimulants) (Joe 1995, 1996; Brecht, O'Brien et al. 2004; Parkes et al. 2008; Greenfield, Back et al. 2010).

Individuals newly abstinent from stimulants tend to gain significant weight (Henry, Minassian et al. 2012).

Weight is core issue for women in treatment to prevent relapse.
## Weight-Related Concerns Related to Drug Use

<table>
<thead>
<tr>
<th>Concern</th>
<th>Prevalence</th>
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<tbody>
<tr>
<td>Concerned about weight while in recovery?</td>
<td>71%</td>
</tr>
<tr>
<td>Concerned that gaining weight could trigger relapse?</td>
<td>45%</td>
</tr>
<tr>
<td>Concerned about using to lose weight after treatment?</td>
<td>30%</td>
</tr>
<tr>
<td>Started using drugs (in part) to lose weight?</td>
<td>33%</td>
</tr>
<tr>
<td>Continued using drugs (in part) to lose weight?</td>
<td>33%</td>
</tr>
</tbody>
</table>
BMI Categories (CDC)

- Underweight: 2% (Prisoners), 3% (Non-Prisoners)
- Healthy: 46% (Prisoners), 26% (Non-Prisoners)
- Overweight: 35% (Prisoners), 22% (Non-Prisoners)
- Obese: 38% (Prisoners), 29% (Non-Prisoners)

Lindsay, 2015
Body Dissatisfaction

The influence of media, culture, family and peers on women’s body image and self-esteem; and it’s relationship to substance abuse
Body Image Disturbances
*(Disliking one's physical appearance)*

• One of the strongest predictors of eating pathology & leads to extreme measures to decrease body weight
  (Stice and Shaw 2003; Parkes, Saewyc et al. 2008).

• Often associated with low self-esteem, depressive symptoms and increased anxiety
  (Paxton, Neumark-Sztainer et al. 2006)
Eating Pathology

Disordered eating behaviors and other co-occurring disorders; risk factors associated with these issues; and the role they play in recovery
Self-Reporting Eating Pathology

Source: Lindsay, 2015
Eating Pathology
Co-morbidity with Substance Abuse

- Often develop/resurface during recovery (remission during drug use)
- Food consumption relies on intuitive satiety cues (which become impaired following substance abuse cessation)
- Results in overeating, binge eating, compensatory behaviors and eating disturbances
  - Unhealthy dieting (e.g. laxative, vomiting, extreme food restriction)
  - Eating practices (e.g. binge eating)
  - Full-blown eating disorders (e.g. BN, AN, BED, etc.)

(Jacobi, Wittchen et al. 2004; Hudson, Hiripi et al. 2007; Hilbert 2012)
Compensatory Behaviors

• Attempting to GET RID of the calories . . .
  • Excessive exercise
  • Purging (making yourself throw up)
  • Misusing Laxative
  • Starvation
  • Diet Pills
  • Drug use/misuse
Alternate Behaviors to Fill Drug Void
How Medication Can Lead to Co-occurring Disorders

Misuse of prescription medications

Stopping Meds or not taking medications as prescribed

Side Effects of some medications can often be triggers for relapse
Dieting & Metabolism

Dangerous dieting and supplement practices; and healthy alternatives to achieve energy balance and improve impaired metabolism
Dieting & Supplements

Dietary restriction, energy & dietary supplements, tobacco, and anorexic & bulimic practices often are a “self treatment of-choice” and a gateway to/back to methamphetamine or other illicit substances
Nutrition

The basic nutrients our bodies need; deficiencies while using drugs and during treatment; and the role of a healthy diet for successful recovery.
The Nutrition Paradox

- Poor nutrition negatively impacts psychological health and addiction.

- Poor psychological health and addiction negatively impacts nutrition.
Substance use disorders, in many cases, can lead to malnutrition, metabolic disorders that compromise nutrition (Nabipour et al., 2014), altered body composition (Tang et al., 2010) and poor mental health (Tolliver and Anton, 2015).
Poor Nutrition Negatively Impacts Psychological Health and Addiction

However, proper nutrition helps with physical recovery, which helps individuals function at a higher level during treatment. Improved nutrient levels and better eating patterns help clients have higher energy levels, better concentration and better sleep patterns, all of which help during the treatment process.

(Dekker, 200, pg. 38)
Physical Activity

The role of physical activity in substance use disorder, depression, anger and stress; and how to promote physical activity during recovery
Depression & Activity Influence Each Other

An inactive lifestyle increases the risk of depression

Depression increases the likelihood of an inactive lifestyle
Cognitive Distortion

Mental filters and influences that affect eating behaviors and improve recovery rates
Repetitive Negative Thinking (RNT)

Higher RNT predicted

Higher binge eating, weighing, body checking, excessive exercise and restriction

Predicted higher RNT

Startup et al., 2013; Sala et al. 2019
What do we know?

↑ body dissatisfaction & preoccupation with shape
↑ severe eating pathologies
↓ ability to employ satiety cues
↑ rates of binge eating
↑ body weights and BMI
↑ weight-related concerns
↑ unhealthy dieting practices
↑ use of illicit drugs for losing weight
HSF Findings

↓ body dissatisfaction & preoccupation with shape
↓ severe eating pathologies
↑ ability to employ satiety cues
↓ rates of binge eating
↓ body weights and BMI
↓ weight-related concerns
↓ unhealthy dieting practices
↓ use of illicit drugs for losing weight
Summary of Major Findings

• Weight status may increase the risk of re-offending for female prisoners and drug offenders
• Concern with weight gain was identified as a trigger for drug relapse
• Concern about using drugs to lose weight following release was prevalent
• Given that many of the women gain weight after arrest/incarceration, this concern may be warranted in this population
Gender-Responsive is key!

Overweight/obesity, lack of physical activity, poor nutrition, perceived weight concerns, body dissatisfaction and poor weight management behaviors lead to “self-medication” to lose weight and increase energy, including illicit drug use which often results in re-offense
Recommendations

- Prisons, jails, treatment facilities should take a PH approach e.g.
  - Decrease sedentary behavior
  - Promote opportunities for PA
  - Improve dining hall nutrition
  - Increase healthy options on commissary

- Provide gender-responsive programs to address these issues that include a team approach (nutrition, physical activity, healthy body image, eating pathology, etc.)
Questions?