Addressing Co-occurring Disorders among Problem Gambling Clients

David M. Ledgerwood, Ph.D.

Department of Psychiatry & Behavioral Neurosciences
Wayne State School of Medicine
dledgerw@med.wayne.edu
Outline

• What is the role of psychiatric co-morbidity in Gambling Disorder?
• How much of a role do trauma and PTSD play?
• What is the state of research on gambling disorder and trauma?
• How should we approach treatment for these co-occurring problems?
Where we’re located...
What Happens in Vegas ... Happens Everywhere

BY DCHINNI  July 12, 2010 at 3:35 PM EST
What are the factors that influence treatment outcomes?

What are the factors that influence treatment outcomes?

Co-occurring Disorders
Case: Eliza

- 60 y.o., retired, widowed, African American woman
- Father had a gambling problem
- Has gambled heavily since she was young
- Developed a more serious gambling problem after her young-adult daughter was murdered in 1982
- Presents with chronic depression/grief, health problems (lupus), and symptoms of PTSD
Case: Jerry

- 59 y.o., married, European Canadian man. Works full time as snowplow driver
- 5 years sobriety from alcohol
- Serious motorcycle accident with closed head injury, chronic pain and multiple surgeries
- Recently came to the realization that his gambling has gotten out of control, and he is using gambling to cover up depression
Case: Delores

- 50 y.o., single, African American business woman
- Out of control gambling
- History of childhood sexual abuse that resulted in significant long-standing depression
- Past dependence on heroin, cocaine and alcohol – In recovery for about 20 years
- Gambling disorder has been off and on for years, but at its worst in the past 5 years
GD and Comorbidity

• PGs have higher prevalence of depression, anxiety disorder, substance abuse and suicidality than the general population.
• PGs with co-occurring psychiatric disorders experience more serious financial, legal, family, social and vocational problem related to their gambling.
• Comorbidity may affect:
  - Appropriate treatment options.
  - Potential for treatment failure or relapse.
Implications

- Gambling disorder rarely occurs without other significant mental health and addiction issues.
- In some cases, gambling may occur in response to other mental health problems.
- Among problem gamblers, it is important to assess psychiatric issues that may be impacting gambling behavior.
- Among mental health patients, it is important to assess for gambling problems.
Depression
Depression and Treatment

- Depression interferes with recovery from gambling disorder.
- Problem gamblers seeking treatment experience a longer period of time before obtaining at least 3 consecutive months of abstinence (Hodgins & el-Guebaly, 2010, J Gambling Studies)

Lister, Milosevic & Ledgerwood, in press, Can J. Psychiatry
Factors Associated with Depression

Contributing factors
- Bereavement/Loss
- Age/Life changes
- Debt/Large gambling losses

Warning signs
- Suicidality
- Isolation
High Rates of Suicide

- 48% of problem gambling patients had a history of suicidal ideation, and 12% had attempted suicide related to gambling (Ledgerwood & Petry, 2004)
- We don’t have good data on the number of problem gamblers who commit suicide
Depression

- High rates of co-occurring depression
- Often associated with more severe difficulties
- Also associated with poorer outcomes in treatment (Hodgins et al., 2005; 2010)
Addictions
Gambling and Addiction

- Gambling is now considered along with the substance use disorders
- Most gamblers have at least a history of other addictions
- Gambling and substance abuse have effects on treatment outcomes
- Most gamblers are also habitual smokers, which may result in health problems
Rates of Co-occurring Disorders

- Over 70% will have an alcohol use disorder
- Almost half have alcohol dependence
- Over 40% have a drug use disorder
- Over 60% smoke cigarettes
- Half have a mood disorder (usually major depression)
- Also high rates of anxiety and personality disorders

Data from Petry, Stinson & Grant, 2005; Red = Percent of pathological gamblers with the condition; Blue = Percent of individuals with the condition who are also pathological gamblers. 195 pathological gamblers sampled from 42,898 adults (NESARC database)
DSM 5 Gambling Disorder
Behavioral assessment of impulsivity in pathological gamblers with and without substance use disorder histories versus healthy controls

David M. Ledgerwood, Sheila M. Alessi, Natalie Phoenix, Nancy M. Petry

- Discounting like delay of gratification
- Discounting delayed rewards is indicative of greater impulsivity
- PGs with and without SUD histories discount delayed rewards at higher rates
Gamblers Process Rewards Differently

- Amygdala, dorsal prefrontal, caudate and insula activity associated with more difficult choice behavior (Amygdala: $x=24, y=3, z=-18, t=4.49, k_E = 79, p<0.009$; dPFC: $x=-48, y=47, z=1, t=4.46, k_E = 585, p<0.009$; Caudate: $x=12, y=0, z=18, t=4.70, k_E = 806, p<0.009$; Insula: $x=-36, y=15, z=7, t=6.75, k_E = 1298, p<0.001$).
Near Miss?
A, Effect of gambling severity (South Oaks Gambling Screen; SOGS) on near-miss-related activation, within the ROI mask (displayed at p < 0.001 uncorrected, k = 10).


©2010 by Society for Neuroscience
Trauma, Post-traumatic Stress Disorder and Gambling
Trauma Defined

• “…a catastrophic event involving actual or threatened death or injury, or a threat to the physical integrity of him/herself or others (such as sexual violence).”

• “Indirect exposure includes learning about the violent or accidental death or perpetration of sexual violence to a loved one.”

http://www.ptsd.va.gov/professional/PTSD-overview/ptsd-overview.asp
DSM 5 PTSD

- Re-experiencing – spontaneous memories, recurrent dreams, flashbacks or prolonged psychological distress
- Avoidance – distressing memories, thoughts, feelings or external reminders
- Negative cognitions/mood – feelings e.g., persistent/distorted sense of blame (self or others), estrangement, markedly diminished interest, inability to remember key aspects
- Arousal – aggressive, reckless or self-destructive behavior, sleep disturbance, hyper-vigilance
Why expect PGs to have PTSD?

Common experiences in GD and PTSD

• Escape from painful emotional experiences
• Depression
• Anxiety
• Dissociation
• Impulsivity
Method

• 149 treatment seeking pathological gamblers.
• Cross-sectional study.
• Measures: NODS; PTSD Checklist; Addiction Severity Index; Gambling Experience Measure; Dissociative Experiences Scale; Brief Symptom Inventory; Eysenck Impulsiveness Scale.
Results

• Mean Age – 47
• 34.2% (N=51) met criteria for PTSD
• 41.7% of women and 26.4% of men
• PTSD+ participants had greater lifetime NODS scores
• Traumas more frequent in PTSD+: Serious accident or fire; traumatic medical treatment; physical threats; witness assaults; sexual assaults.
## Trauma

<table>
<thead>
<tr>
<th>Trauma</th>
<th>No PTSD N=97, % (N)</th>
<th>PTSD N=51, % (N)</th>
<th>$\chi^2$ (df=1)</th>
<th>$p&lt;$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Witnessed another’s severe illness or death</td>
<td>60.2 (59)</td>
<td>66.7 (34)</td>
<td>0.60</td>
<td>0.44</td>
</tr>
<tr>
<td>Threatened with physical harm</td>
<td>36.7 (36)</td>
<td>62.7 (32)</td>
<td>9.15</td>
<td>0.01</td>
</tr>
<tr>
<td>In a serious accident or fire</td>
<td>29.6 (29)</td>
<td>51.0 (26)</td>
<td>6.59</td>
<td>0.01</td>
</tr>
<tr>
<td>Witnessed accident or fire</td>
<td>28.6 (28)</td>
<td>49.0 (25)</td>
<td>6.12</td>
<td>0.05</td>
</tr>
<tr>
<td>Forced sexual activity*</td>
<td>25.5 (25)</td>
<td>51.0 (26)</td>
<td>9.67</td>
<td>0.01</td>
</tr>
<tr>
<td>Trauma during medical treatment (e.g., emergency treatment)</td>
<td>19.4 (19)</td>
<td>45.1 (23)</td>
<td>10.95</td>
<td>0.001</td>
</tr>
<tr>
<td>Attacked with a weapon</td>
<td>21.6 (21)</td>
<td>39.2 (20)</td>
<td>5.15</td>
<td>0.05</td>
</tr>
<tr>
<td>Witnessed family members attacking each other</td>
<td>18.4 (18)</td>
<td>39.2 (20)</td>
<td>7.67</td>
<td>0.01</td>
</tr>
<tr>
<td>Storm (e.g., tornado) or natural disaster</td>
<td>15.3 (15)</td>
<td>29.4 (15)</td>
<td>4.42</td>
<td>0.05</td>
</tr>
<tr>
<td>Witnessed non-family members attacking each other</td>
<td>9.2 (9)</td>
<td>35.3 (18)</td>
<td>15.41</td>
<td>0.001</td>
</tr>
<tr>
<td>Mugging or kidnapping</td>
<td>7.1 (7)</td>
<td>11.8 (6)</td>
<td>0.90</td>
<td>0.34</td>
</tr>
<tr>
<td>Fought in war or civilian in war</td>
<td>3.1 (3)</td>
<td>8.0 (4)</td>
<td>1.75</td>
<td>0.19</td>
</tr>
<tr>
<td>Friend or family killed by drunk driver</td>
<td>2.0 (2)</td>
<td>7.8 (4)</td>
<td>2.92</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Any Trauma</strong></td>
<td><strong>83.7 (82)</strong></td>
<td><strong>100.0 (51)</strong></td>
<td><strong>6.85</strong></td>
<td><strong>0.01</strong></td>
</tr>
</tbody>
</table>
Addiction Severity Index Composites

2 X 2 (PTSD X Gender) MANOVA.

* Univariate comparisons, p < 0.05.
2 X 2 (PTSD X Gender) MANOVA

* Univariate comparisons, p < 0.05. Men scored higher than women on Attention Seeking
Trauma and PTSD

- Trauma highly prevalent among problem gamblers
- 150 problem gamblers (half men/women)
- Recruited from community sources (only 16% had ever received gambling treatment; most had received MH treatment)
- Age 36 years old
- Age first gambling 19 years old

Ledgerwood & Milosevic, 2013
Trauma and PTSD

Ledgerwood & Milosevic, in press, J. Gambling Studies
• Trauma and PTSD issues are prevalent among problem gamblers
• Associated with higher rates of substance abuse, depression and anxiety disorders
• Some individuals may use gambling as a way to cope with painful affect related to trauma
Clinical Implications

• Trauma may be a precipitant of gambling problems in many PGs.

• A primary motivation for gambling in PGs with PTSD may be escape from painful emotional experience.

• Patients presenting for PG should be assessed for PTSD and exposure to major psychological trauma.
Future Questions

- Does PG increase the likelihood of becoming traumatized or victimized?
- Does gambling serve as a coping tool for gamblers with PTSD? Or does PTSD place an individual at greater risk for PG?
- Are our current treatments appropriate for this group?
How should we treat gambling and co-occurring issues?

For our cases, what are the things you would most want to find out/address with these clients?
Case: Eliza

- 60 y.o., retired, widowed, African American woman
- Father had a gambling problem
- Has gambled heavily since she was young
- Developed a more serious gambling problem after her young-adult daughter was murdered in 1982
- Presents with chronic depression/grief, health problems (lupus), and symptoms of PTSD
Case: Jerry

- 59 y.o., married, European Canadian man. Works full time as snowplow driver
- 5 years sobriety from alcohol
- Serious motorcycle accident with closed head injury, chronic pain and multiple surgeries
- Recently came to the realization that his gambling has gotten out of control, and he is using gambling to cover up depression
Case: Delores

- 50 y.o., single, African American business woman
- Out of control gambling
- History of childhood sexual abuse that resulted in significant long-standing depression
- Past dependence on heroin, cocaine and alcohol – In recovery for about 20 years
- Gambling disorder has been off and on for years, but at its worst in the past 5 years
Cognitive-Behavior Model of Relapse

- From Witkiewitz & Marlatt, 2004
Cognitive-Behavior Model of Relapse

- From Witkiewitz & Marlatt, 2004

Thoughts, emotions, reactions and triggers related to the trauma
Above all else…

- Provide supportive counseling
- Validate the client’s experience
- Establish therapy as a safe place
- Be a trustworthy and reliable consultant
- Be empathetic
- Obtain self-care
What does this all mean?
Pathways – Treatment outcome

Ledgerwood & Petry, 2010, Psychology of Addictive Behaviors
Acknowledgements

- Wayne State / Windsor Regional/Hotel Dieu Grace Hospital
  Ula Khayyat-Abuaita, MA
  Dragana Ostojic, MA
  Amy Loree, MA
  Leslie Lundahl, PhD
  Vaibhav Diwadkar, PhD
  Bojana Knezevic, PhD
  Hayley Devoli, BA
  Cynthia Arfken, PhD
  Ashley Weidemann, MA
  Lisa Sulkowsky, BS
  Gina Bulcke, PhD

- HMSA and Neighborhood Services Organization
- UCLA Problem Gambling Program and CALGETS
- Michigan Office of Recovery Oriented Systems of Care
- Michigan Association on Problem Gambling
- Grant Support
  Ontario Problem Gambling Research Centre
  Michigan Department of Community Health
  National Institutes of Health

Contact: David Ledgerwood – dledgerw@med.wayne.edu
Thank You!

Contact: dledgerw@med.wayne.edu

313-993-1380