Gender & Addiction

Revising, Rethinking, & Reframing

Division on Addictions

Cambridge Health Alliance, Harvard Medical School
Why Talk about Gender?

- Gender continues to be a primary divider
  - Workplace, medical research, politics, socially, etc.

- Historically, addictive behavior has been associated with men
  - Conventional wisdom suggests that:
    - Addiction is worse for men
    - Causes of addiction are different for men and women
    - Men are at greater risk for developing addiction
Gender & DUI

- 23% of men involved in fatal car crashes had BAC of .08 or more
  - Only 12% of women involved in fatal car crashes had comparable BAC (NHTSA, 2005a)

- During the past 2 decades, male drivers killed in drunk-driving accidents decreased slightly
  - The number of female drivers killed in drunk-driving accidents increased by 50% (NHTSA, 2005b)

- % change in DUI offenses by men = -11.7%
  - % change in DUI offenses by women = +19.3% (FBI, 2006)
Psychiatric Comorbidity & Addiction

- Psychiatric comorbidity’s relationship to addiction-related problems differs for men and women

- Petry et al., 2005; Blanco et al., 2006
  - Relationship between pathological gambling and alcohol dependence, drug use disorders, tobacco dependence, depression, and generalized anxiety was stronger for women
  - Women with PG more likely to have mood or anxiety disorders, more likely to report gambling to relieve depressed mood

- Potenza et al., 2001
  - Women more likely to report anxiety and suicide attempts caused by gambling; men more likely to report drug problems; about 20% of both report alcohol problems
MDUIL Gender Differences in Lifetime Psychiatric Disorders (Men v. Women)

- **Women exceed men:**
  - Alcohol dependence (37.4 v. 55.1) na
  - Nicotine dependence (13.8 v. 25.0) *
  - Bipolar I or II (5.9 v. 13.2) *
  - GAD (5.9 v. 19.1) *
  - PTSD (9.4 v. 30.1)

- **Men exceed women:**
  - Alcohol abuse (60.7 v. 40.4) na
  - Drug abuse (27.8 v. 17.6) na

- **No gender differences:**
  - Drug dependence, disordered gambling, major depression, dysthymia, IED, ADD, CD
MDUIL Gender Differences in Past Year Psychiatric Disorders (Men v. Women)

- Women exceed Men:
  - Alcohol dependence (28.5 v. 42.6) na
  - Nicotine dependence (9.9 v. 23.5) *
  - Bipolar I or II (3.5 v. 13.2) *
  - GAD (4.2 v. 16.9) *
  - PTSD (8.6 v. 24.3)

- Men exceed Women:
  - Alcohol Abuse (44.2 v. 34.6) na

- No gender differences:
  - Drug abuse, drug dependence, disordered gambling, major depression, dysthymia, IED, ADD, CD
MDUIL Lifetime Psychiatric Diagnosis Pattern

![Bar chart showing percent with comorbidity pattern for different diagnoses.](image-url)
MDUIIL Past Year Psychiatric Diagnosis Pattern

Percent with Comorbidity Pattern

Diagnoses

None  Non-Addiction  Alcohol Only  Addiction Only  Addiction + 1  Addiction + 2  Addiction + 3 or More

Men  Women

**  ***  **  *  **  *  **
Summary

- Seems to be fairly strong evidence to pursue gender differences
  - Women in our sample narrowed gender gaps typically seen in the GP on which men exceed women
  - Women in our sample widened gender gaps typically seen in the GP on which women exceed men

- Women exhibited a more extensive pattern of psychiatric comorbidity than men
  - Is drinking and driving more likely to be secondary for women?
Cautions

- It is important to exercise caution when using gender as a primary categorizing construct
  - Overestimating the value of gender risks minimizing the value of other important psychosocial constructs
    - Some women fit prototypical male profiles and some men fit prototypical female profiles
On Certainty

“IT AIN'T WHAT YOU DON'T KNOW THAT GETS YOU IN TROUBLE; IT'S WHAT YOU KNOW FOR SURE THAT AIN'T SO.”

Mark Twain
Gender and Gambling

- Historically, gambling has been a predominantly male pastime
- Since expanded legalization, more women are participating in gambling
  - Evident in general population surveys
    - e.g., Welte et al. (2002)
  - Evident in special population surveys
    - e.g., Slutske et al. (2003)
Ongoing Gender Differences

- Men bet more money
- Men bet more frequently
- Men report more betting problems

- Disorder Progression
- Game Choice
Disorder Progression

- The “telescoping” effect for women
Telescoping has been found reliably in the alcohol literature (e.g., Piazza et al., 1989; Randall et al., 1999)
- Women begin drinking later, but progress to their first problem and treatment seeking faster than men
- Women’s faster progression from first drink to problems has been found in treatment and general population studies

Telescoping has also been found among drug using populations (e.g., Haas & Peters, 2000; Hernandez-Avila et al., 2004)
Individual Trajectories: Alcohol and Progression

- Telescoping more pronounced and evident in older cohorts than in younger groups
  - Randall et al., 1999 and Blankfield et al., 1990: Gender differences in age of onset and progression were not present in younger cohorts of treatment-seekers

- A recent study (Diehl et al., 2007) found that telescoping did not affect treatment outcome, though there was some evidence that a longer duration of alcohol dependence predicted better treatment outcomes
Individual Trajectories: Alcohol and Progression

Some research shows possible biological mechanisms for the telescoping effect

- Hommer et al., 2001 found that differences in brain volume in alcoholic and non-alcoholic women were greater than differences between alcoholic and non-alcoholic men

- Mann et al., 2005 found that heavy drinking men and women showed similar levels of brain atrophy though women in the sample had been drinking heavily for a shorter period of time

However, the age effects on telescoping suggest that the phenomenon likely also has a sociocultural component
Gender & Disorder Progression

Men
- Gambling Initiation
- 1st Gambling Problem
- Treatment Seeking

Women
- Gambling Initiation
- 1st Gambling Problem
- Treatment Seeking

(e.g., Tavares et al., 2003; Tavares et al., 2001)
Gender & Game Choice

- Men prefer action-oriented and/or competitive games (e.g., cards, racing)
- Women prefer escape-oriented and/or social games (e.g., slots, bingo)
  - Observed in treatment samples
    - e.g., Potenza et al. (2001)
  - Observed in national surveys among PGs
    - e.g., Blanco et al. (2006)
Site: Iowa & The Iowa Gambling Treatment Program

- Network of local service providers that hold contracts with the IDPH
- Outpatient program with a variety of diagnostic and treatment services
- Iowa has 99 counties and a population of almost 3 million
- Gambling is prolific in Iowa
  - Racing
  - Casinos
  - Lottery
  - Bingo

Gambling is prolific in Iowa – Racing, Casinos, Lottery, Bingo

LaPlante, Nelson, LaBrie, & Shaffer, 2006 & Nelson, LaPlante, LaBrie, & Shaffer, 2006
Gamblers admitted to the Iowa Gambling Treatment Program (IGTP) between 1997 and 2001 (N=2,356).

58% male and 42% female.

IGTP admits an individual if the person meets criteria for PG according to:

- The South Oaks Gambling Screen (SOGS) (Lesieur & Blume, 1987),
- The Gamblers Anonymous (GA) 20 Questions,
- or, the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1994)
Self-report Intake Measures

- Demographic information
- Gambling history
- Legal history
- Medical and health history
- Psychological history and mental status
- Family history
- Educational history
- Employment history
- Other relevant information that would assist clinicians in formulating a treatment plan
Two Primary Approaches to the Study of Gender

- **Independent**
  - Gender as independent variable
  - Men do X, but women do Y

- **Integrated**
  - Gender is one of many factors that are important in predicting behavior
  - Gender has unique and shared predictive value
Independent Approach
# IGTP Psychosocial Variables

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<tr>
<th>Demographics</th>
<th>Men</th>
<th>Women</th>
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<tbody>
<tr>
<td>Age</td>
<td>42</td>
<td>45</td>
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<tr>
<td>Military Background</td>
<td>32.7%</td>
<td>5.0%</td>
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<tr>
<td>Socioeconomic Status</td>
<td>0.09</td>
<td>-0.10</td>
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<tr>
<td>Family Responsibilities</td>
<td>3.4</td>
<td>3.8</td>
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<table>
<thead>
<tr>
<th>Gambling History &amp; Behavior</th>
<th>Men</th>
<th>Women</th>
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<tbody>
<tr>
<td>1st Gambled w/ Family</td>
<td>30.0%</td>
<td>50.3%</td>
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<tr>
<td># of Types of Games</td>
<td>2.4</td>
<td>2.0</td>
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<table>
<thead>
<tr>
<th>Criminality</th>
<th>Men</th>
<th>Women</th>
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<tbody>
<tr>
<td>Criminal History (std.)</td>
<td>0.02</td>
<td>-0.05</td>
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<tr>
<td>Wagered Illegally</td>
<td>5.9%</td>
<td>1.8%</td>
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<tr>
<th>Comorbidity</th>
<th>Men</th>
<th>Women</th>
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<tbody>
<tr>
<td>Chemical Addictions (std.)</td>
<td>0.04</td>
<td>-0.06</td>
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<tr>
<td>Behavioral Addictions (std.)</td>
<td>-0.02</td>
<td>0.05</td>
</tr>
<tr>
<td>Substance Treatment</td>
<td>27.0%</td>
<td>13.3%</td>
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<tr>
<td>Disorder Progression</td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>----------------------</td>
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</tr>
<tr>
<td>Age Started Gambling</td>
<td>22</td>
<td>30</td>
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<tr>
<td>Age Gambling Became Problem</td>
<td>36</td>
<td>41</td>
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<tr>
<td>Time to Problem (yr)</td>
<td>14</td>
<td>11</td>
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<tr>
<td>Time to Treatment (yr)</td>
<td>6</td>
<td>4</td>
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<table>
<thead>
<tr>
<th>Game Choice</th>
<th>Men</th>
<th>Women</th>
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<tbody>
<tr>
<td>Casino</td>
<td>16.1%</td>
<td>3.5%</td>
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<tr>
<td>Non-Institutional</td>
<td>8.0%</td>
<td>0.4%</td>
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<td>Multigame</td>
<td>20.7%</td>
<td>13.6%</td>
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<td>Slots</td>
<td>40.5%</td>
<td>68.6%</td>
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<tr>
<td>Bingo</td>
<td>0.3%</td>
<td>1.3%</td>
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</table>
Integrated Approach
Analytic Strategy

- Multiple Discriminant Function Analysis (MDFA)
  - Discriminating Disorder Progression and Game Choice

- Examined the relative contributions of demographic, economic, and health-related factors
  - With and without gender
Disorder Progression/
Game Choice

Demographics

Health

Socio-
economics

Gender
Results: Game Choice

- We identified and examined 3 primary player preference types:
  - Casino preferred (CP)
  - Slots preferred (SP)
  - Non-institutional preferred (NP)
Without Gender, Classification Accuracy = 59%

With Gender, Classification Accuracy = 61%
Summary: Game Choice

- Gender does not hold as much unique discriminatory power for distinguishing gambling preferences as many have thought.

- Personal demographic, economic, and health-related profiles provide essential distinguishing information for gamblers who prefer specific games.
We identified gambling problem trajectories from three variables:

- age of gambling initiation
- age of first reported problems
- age of treatment
Disorder Progression

**Early Start, Slow**
- Start
- 1st Problem
- Treatment

**Early Start, Fast**
- Start
- 1st Problem
- Treatment

**Young Adult**
- Start
- 1st Problem
- Treatment

**Midlife**
- Start
- 1st Problem
- Treatment

Time →
Independent Approach
Independent Results: Gender by Disorder Progression

- Early Start Fast Progression:
  - Women: 6
  - Men: 74

- Early Start Slow Progression:
  - Women: 90
  - Men: 200

- Young Adult Trajectory:
  - Women: 418
  - Men: 574

- Mid-Life Trajectory:
  - Women: 146
  - Men: 70
Integrated Approach
Integrated Results: Disorder Progression

Without Gender, Classification Accuracy = 40%

Without Gender, Classification Accuracy = 41.7%
Gender & Disorder Progression

- Gender is an important predictor of disorder progression in treatment-seekers
  - The effect of gender on gambling problem trajectory is only a small part of the whole picture

- Other psychosocial characteristics contribute as much or more than gender
  - These factors deserve at least as much weight in prevention and treatment efforts as gender
Implications

- For Theory?
- For Practice?
- For Research?
Implications for Theory

- Gender is an ambiguous construct that is quite malleable over time and across social settings.
- The usefulness of gender as a marker for phenomena of interest only remains for as long as gender roles and representations remain fixed.
Implications for Practice

- It is important to avoid the tendency to over-generalize the importance of specific demographic characteristics, such as gender.
- Over-generalization values simplicity at the cost of precision in the identification of individual preferences, risk factors, and tendencies related to gambling.
Attention Dog Walkers

Pick up after your dogs and use a leash. It's the law.

Attention Dogs
Grrrr, bark, woof-woof. Good dog.

City of South Burlington
An Example

- Some men whose profiles more closely resemble slot players than non-casino players erroneously might receive treatment that focuses more heavily on presumable “male” concerns – e.g., illegal gambling and chemical addictions

- Such individuals might benefit more from greater emphasis on family and age, despite the conventional wisdom that commonly associates family and age factors with female gamblers
Implications for Research

- Although gender has taken on an important role in gambling research and social research in general, its own durability for discrimination is unknown.
- It is equally important to identify the durability of profiles’ discriminatory power.
- Moving forward, we suggest that researchers and clinicians further explore the theoretical and clinical usefulness of comprehensive player profiles.
Concluding Thoughts

- Often, what we think we know is different from what *is*
- As the science of addiction evolves, we might not be able to hold on to popular assumptions related to gender
- Even the most up-to-date findings could be obsolete tomorrow
- With each revision, or paradigm shift, we get closer to truth