Psychiatric Comorbidity among Pathological Gamblers Seeking Treatment in Hong Kong

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Tung Wah Group of Hospitals
Hong Kong
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Tung Wah Group of Hospitals (TWGHs) Even Centre

- TWGHs Even Centre is funded through “Ping Wo Fund” under the administration of Home Affair Bureau, Hong Kong SAR. Even Centre was launched in Oct 2003 and has provided counselling and treatment to over 3,500 families who were affected by pathological gambling.

- Our mission is to assist gamblers and families to resume a harmonious and balanced life while treating the pathological gambling behaviour.
Tung Wah Group of Hospitals
Even Centre

- Services include:
  - Hotline counseling
  - Individual counseling and treatment
  - Group counseling and treatment
  - Community education
  - Professional training
  - Research
  - International Problem Gambling and Addictions Conferences
## Gambling activities in Hong Kong

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2005</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participated in gambling activities in past year</td>
<td>77.8%</td>
<td>80.4%</td>
<td>71.3%</td>
</tr>
<tr>
<td>Problem gambling</td>
<td>4.0%</td>
<td>3.1%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Pathological gambling</td>
<td>1.8%</td>
<td>2.2%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

Source: Polytechnic University of Hong Kong (2008)
### Possibility to become pathological gambling

#### Types of Gambling

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horse racing</td>
<td>59.48%</td>
</tr>
<tr>
<td>Soccer betting</td>
<td>50.96%</td>
</tr>
<tr>
<td>Mahjong Club</td>
<td>23.34%</td>
</tr>
<tr>
<td>Macau Casino</td>
<td>47.79%</td>
</tr>
</tbody>
</table>

Source: TWGHs Even Centre (2010)
1. Background

Rationale

- The etiology and impacts of pathological gambling are multifaceted and complex. Clinical experiences show that psychiatric disorders are common among pathological gamblers seeking treatment.

- Challenges faced by gambling counselors and clinicians in Hong Kong are to identify the comorbid psychiatric disorders and to design an appropriate treatment plan that can address both pathological gamblers and psychiatric disorders.

- There is a significant gap in the literature on the relationships between pathological gambling and comorbid psychiatric disorders in the Chinese communities.
1. Background

Collaborators:
- Tung Wah Group of Hospitals Even Centre (Hong Kong)
- Department of Applied Social Sciences, The Hong Kong Polytechnic University (Hong Kong)
- Divisions on Addictions, Cambridge Health Alliance, An affiliate of Harvard Medical School (USA)

Funding:
- Ping Wo Fund
- Tung Wah Group of Hospitals Board of Directors
2. Objectives

a) to determine the **prevalence** of comorbid psychiatric disorders among pathological gamblers seeking treatment in Hong Kong;

b) to compare the **demographic profiles, gambling and clinical features** of pathological gamblers with and without comorbid psychiatric disorders;

c) to explore the **associations** between pathological gambling and comorbid psychiatric disorders and their temporal relationship.
3. Methodology

Sources of data

– Data collection
  • From June 2009 to February 2010
  • 201 participants completed the interview successfully

– Inclusion criteria
  • Service users who sought gambling treatment from TWGHs Even Centre and Zion Social Services Yuk Lai Hin
  • Age 18 or above
  • Satisfaction of five or more DSM-IV diagnostic criteria for pathological gambling

– Exclusion criteria
  • Manifestation of signs of cognitive impairments or imminent suicidal risk
  • Inability to read Chinese characters or to speak Cantonese
3. Methodology

Assessment Tool

1) Structural Clinical Interview for DSM-IV
   - Semi-structured interview
   - Diagnoses for major DSM-IV Axis-I disorders
     • Mood Disorders
     • Schizophrenia Spectrum Disorders
     • Substance Use Disorders
     • Anxiety Disorders
     • Adjustment Disorder
3. Methodology

Assessment Tool

2) Addiction Severity Index - Gambling Section (ASI-G)

3) Brief Symptom Inventory (BSI)
   - measure psychiatric symptoms in nine dimensions
   - includes depression, somatization, obsessive-compulsive, anxiety, psychoticism, hostility, phobic anxiety, interpersonal sensitivity and paranoid ideation.
Assessment Tool

4) Range of Impairment Functional Tool (LIFE-RIFT)
   – Assessment of functioning in various domains including work, interpersonal relations, global satisfaction and recreation

5) Fagerstrom Test for Nicotine Dependence (FTND)
   – Measure severity of nicotine problems
In this study, both lifetime and current diagnosis of comorbid psychiatric disorder were assessed.

- **Lifetime Diagnosis**
  - Presence of a psychiatric disorder any time in life

- **Current Diagnosis**
  - Presence of a psychiatric disorder in the past month before the interview

The comparisons on different variables for lifetime and current diagnosis were found to be consistent. Only lifetime diagnosis will be reported in this presentation.
4. Results

(i) Prevalence rate for comorbid psychiatric disorder (CPD)

<table>
<thead>
<tr>
<th></th>
<th>Lifetime</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Psychiatric Disorder</td>
<td>128 (63.7%)</td>
<td>90 (44.8%)</td>
</tr>
</tbody>
</table>
4. Results

(i) Prevalence rate for comorbid psychiatric disorder

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Mood Disorder</td>
<td>59 (29.4%)</td>
</tr>
<tr>
<td>Major Depressive Disorder</td>
<td>43 (21.4%)</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>4 (2.0%)</td>
</tr>
<tr>
<td>Dysthymia</td>
<td>13 (6.5%)</td>
</tr>
</tbody>
</table>
4. Results

(i) Prevalence rate for comorbid psychiatric disorder

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Schizophrenia Spectrum Disorder</td>
<td>5 (2.5%)</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>4 (2.0%)</td>
</tr>
</tbody>
</table>
4. Results

(i) Prevalence rate for comorbid psychiatric disorder

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Substance Use Disorder</td>
<td>62 (30.8%)</td>
</tr>
<tr>
<td>Alcohol Abuse or Dependence</td>
<td>23 (11.4%)</td>
</tr>
<tr>
<td>Nicotine Dependence</td>
<td>49 (24.4%)</td>
</tr>
<tr>
<td>Any Drug Abuse or Dependence</td>
<td>10 (5.0%)</td>
</tr>
</tbody>
</table>
4. Results

(i) Prevalence rate for comorbid psychiatric disorder

<table>
<thead>
<tr>
<th>Any Anxiety Disorder</th>
<th>Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panic Disorder</td>
<td>5 (2.5%)</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>2 (1.0%)</td>
</tr>
<tr>
<td>Social Phobia</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Specific Phobia</td>
<td>8 (4.0%)</td>
</tr>
<tr>
<td>Obsessive-Compulsive Disorder</td>
<td>4 (2.0%)</td>
</tr>
<tr>
<td>Post-Traumatic Stress Disorder</td>
<td>4 (2.0%)</td>
</tr>
<tr>
<td>Generalized Anxiety Disorder</td>
<td>4 (2.0%)</td>
</tr>
</tbody>
</table>
4. Results

(i) Prevalence rate for comorbid psychiatric disorder

<table>
<thead>
<tr>
<th>Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustment Disorder</td>
</tr>
<tr>
<td>42 (20.9%)</td>
</tr>
</tbody>
</table>
• Results showed that the prevalence rate of comorbid psychiatric disorder among pathological gamblers seeking treatment in Hong Kong was considerably high.

• The most common comorbid psychiatric disorders were mood disorder, adjustment disorder and substance use disorder.
4. Results

(ii) Number of comorbid psychiatric disorders

<table>
<thead>
<tr>
<th></th>
<th>Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>73 (57.0%)</td>
</tr>
<tr>
<td>Two</td>
<td>33 (25.8%)</td>
</tr>
<tr>
<td>Three or more</td>
<td>22 (17.2%)</td>
</tr>
<tr>
<td>Total</td>
<td>128 (100%)</td>
</tr>
<tr>
<td>Average</td>
<td>1.70</td>
</tr>
</tbody>
</table>
### 4. Results

(iii) Temporal sequence in onset

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Age of onset</th>
<th>P.G. first</th>
<th>C.P.D. first</th>
<th>Same year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Psychiatric Disorder (N = 128)</td>
<td>28.6</td>
<td>35.2 %</td>
<td>55.5 %</td>
<td>9.4 %</td>
</tr>
<tr>
<td>Any Mood Disorder (N = 59)</td>
<td>36.4</td>
<td>62.7 %</td>
<td>13.6 %</td>
<td>23.7 %</td>
</tr>
<tr>
<td>Any Schizophrenia Spectrum Disorder (N = 5)</td>
<td>28.6</td>
<td>40.0 %</td>
<td>60.0 %</td>
<td>0 %</td>
</tr>
<tr>
<td>Any Substance Use Disorder (N = 63)</td>
<td>21.9</td>
<td>15.9 %</td>
<td>74.6 %</td>
<td>9.5 %</td>
</tr>
<tr>
<td>Any Anxiety Disorder (N = 19)</td>
<td>27.9</td>
<td>36.8 %</td>
<td>57.9 %</td>
<td>5.3 %</td>
</tr>
<tr>
<td>Adjustment Disorder (N = 42)</td>
<td>37.7</td>
<td>64.3 %</td>
<td>21.4 %</td>
<td>14.3 %</td>
</tr>
</tbody>
</table>
• In this study, mood disorder and adjustment disorder tended to appear after pathological gambling.

• Onset of schizophrenia spectrum disorder, anxiety disorder and substance use disorder tended to appear before the onset of pathological gambling.
4. Results

(iv) Demographic characteristics

• Demographic characteristics include
  – Age;
  – Gender;
  – Marital status;
  – Educational Attainment;
  – Living arrangement;
  – Type of housing;
  – Economic Status;
  – Occupation;
  – Personal Income
Those with comorbid psychiatric disorders had a significantly greater proportion being unemployed.

Economic status

- Employed: 73.4% with CPD, 90.4% without CPD
- Homemakers, Retired or Students: 6.3% with CPD, 2.7% without CPD
- Unemployed: 20.3% with CPD, 6.8% without CPD
Those with comorbid psychiatric disorders had a significantly greater proportion having no income.
There are significant differences on economic status and personal income between pathological gamblers with and without comorbid psychiatric disorder.
4. Results

(v) Gambling characteristics

• To compare the differences on gambling related problems between pathological gamblers with and without psychiatric disorders

• “Gambling problems” include craving, withdrawal symptoms, disturbing effects of gambling, or wanting to stop and being unable
Those with comorbid psychiatric disorders had significantly higher ASI-composite score

Score

ASI-G (Composite Score)

with CPD
without CPD

0.42
0.32
Those with comorbid psychiatric disorders had significantly experienced more unexpected days of gambling in the month prior to interview.
Those with comorbid psychiatric disorders had significantly experienced more days with gambling problems in the month prior to interview.
Those with comorbid psychiatric disorders were significantly more bothered by gambling problems in the month prior to interview.
• Those with comorbid psychiatric disorders displayed more severe gambling problems in general than those without comorbid psychiatric disorders.
4. Results

(vi) Clinical characteristics

• To compare the differences on clinical characteristics between pathological gamblers with and without psychiatric disorders

• Clinical characteristics include:
  – Psychiatric Symptoms (BSI)
  – Level of Psychosocial Impairment (LIFE-RIFT)
  – Nicotine Problems (FTND)
Brief Symptom Inventory

Score

Somatization
Obsessive-Compulsive
Interpersonal sensitivity
Depression
Anxiety
Hostility
Phobic anxiety
Paranoid ideation
Psychoticism

with CPD
without CPD
• Those with comorbid psychiatric disorders scored significantly higher in these nine psychiatric symptom dimensions.

• Those with comorbid psychiatric disorders experienced more psychiatric symptoms and were more bothered by these symptoms.
Those with comorbid psychiatric disorders were significantly more impaired in psychosocial functioning.
Those with comorbid psychiatric disorders significantly experienced severe nicotine problems.
• Those with comorbid psychiatric disorders reported more severity in psychopathology, impairment in psychosocial functioning and nicotine problems compared to those without comorbid psychiatric disorders
5. Recommendations

1) Establish a multidisciplinary team

- Health professionals from multidisciplinary teams include
  - Psychiatrists
  - Clinical psychologists
  - Gambling counselors
  - Social workers

- Comprehensive treatment plan with
  - Medical treatment
  - Individual and family counseling
  - Group counseling
  - Financial management and debt counseling

- To strengthen a close and collaborative work among multidisciplinary professionals to formulate treatment plan
5. Recommendations

2) Provide comprehensive assessment during intake

- Develop compulsive and comprehensive assessment on psychiatric disorders and different kinds of addictions including
  - Pathological gambling
  - Drug and alcohol use
  - Cigarette use
  - Internet addiction

- Some semi-structured or structured instruments could be used by trained professionals for diagnosing DSM-IV psychiatric disorders
5. Recommendations

3) Provide professional training with knowledge for early detection

• To avoid the consequences of delayed treatment for dual diagnosis of pathological gambling and psychiatric disorders

• Target:
  – Psychiatrists, clinical psychologists, gambling counselors and medical social workers

• Purpose:
  – Enhance sensitivity and knowledge to detect comorbid psychiatric disorders during intake
  – To develop a more effective treatment plan
5. Recommendations

4) Establish an Asia Pacific Addiction Practice, Research, and Training Centre

- To provide comprehensive and integrated treatment services for multiple addictions
  - facilitate evidence-based practice
  - create a platform for coordinating addiction research, practice and professional training in an integrated fashions
  - help professionals better understand and provide effective treatment on people with multiple addictions
  - advance local knowledge on the field of addictions
  - encourage interdisciplinary collaborations among addiction services and academic institutions in Asia Pacific regions
Thank you