



Caritas Addicted Gamblers Counseling Centre

City University of Hong Kong

A preliminary study of the effectiveness of Group Cognitive-behavioural Therapy for Chinese pathological gamblers in Hong Kong

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APCG 2013

Background of CBT Treatment Group & its Research

About Cognitive Behavioural Therapy

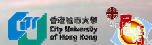
CCBT (Chinese Cognitive Behavioural Therapy Hub), City University of Hong Kong

- Ample clinical group and case work in Depression disorder, Anxiety Disorder, early Schizophrenia, parents & elderly
- Professional training for helping professions
- Research & teaching

Caritas Addicted Gamblers Counselling Centre

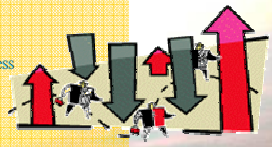

- Take a major role in our casework counseling
- Elements were applied to variety of our groups, including treatment group, mutual support group and peer supporter training
- First trial for a structural CBT treatment group

- First control study of the effectiveness of Cognitive Behavioural Group Therapy for problem gamblers in Chinese Society



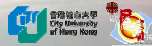
Outline

- Background of CBT Treatment Group & its Research
- Psychological Model of Problem Gambling
- Integrated CBT Group Treatment for Chinese Problem Gamblers
- Methods & Procedures
- Programme Structure & Group Process
- Research Result
- Coming up Research & Manual

Background of CBT Treatment Group & its Research

- Objectives of our study
 - To develop an integrated CBT group treatment for Chinese problem gamblers in Hong Kong,
 - To generate initial evidence towards the effectiveness of an integrated CBT model for Chinese problem gamblers in Hong Kong,
 - To examine the relationships between gambling-related cognition, gambling urge, severity of gambling and symptoms of stress, depression and anxiety among problem gamblers in Hong Kong.



Background of CBT Treatment Group & its Research

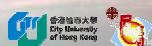
Our team

- CCBT (Chinese Cognitive Behavioural Therapy Hub), City University of Hong Kong
 - First established academic and clinical research organization for CBT in HK
 - Chairperson: Prof. Wong Fu-keung, Daniel
 - Clinical Supervisor: Dr. Chung Lai-ping, Catherine
 - And the research team
- Caritas Addicted Gamblers Counselling Centre (香港明愛展晴中心)
 - One of four subvented gambling counselling centres in HK.
 - One of two first established centres of its kind. 10th year of service
 - Social Work Supervisor: Mr. Tang Yiu-cho, Joe
 - Counselor: Mr. Lau Tak-ching, Patrick
 - Miss. Wan Bo-ching, Jennie (ex. Counselor)



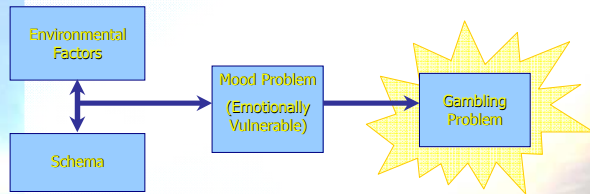
Psychological Model of Problem Gambling

- DSM V (APA, 2013)
 - Pathological Gambling → Gambling Disorder
- Impulse Control Disorders ⇒ Substance-Related and Addictive Disorders
 - Sole "Non-Substance-Related Disorders" among its category
 - I.e., only defined Behavioural Addiction
- Commonalities with substance abuse
 - brain imaging studies and neurochemical tests – similar activities on mesolimbic reward pathway in brain
 - Clinically similar symptoms, e.g., ...



Psychological Model of Problem Gambling

- How gambling addiction is related to CBT?



- An Escape/ Coping for stress and emotional vulnerability (Compensatory strategy)



Psychological Model of Problem Gambling

A Learned Behaviour & product of Cognitive Error (direct response)

- In some circumstances, it could happen alone, even without mood disturbance, but simply out of triggers such as gambling related info. and corresponding belief of winning expectancy

A Learned Behaviour

- Gambling as an intermittent schedule of reinforcement
 - Problem gambling is acquired through classical and operant conditioning and is reinforced on a partial and variable reinforcement schedule (Sharpe & Tarrier, 1993)
 - Both internal elements (physiological activations & gambling related cognitions) & external elements (situation & time) (Ladouceur et al., 2002)
 - Other types of reinforcers include excitement and stimulation that gamblers obtain (i.e. positive reinforcement) or temporary distraction and escape from negative emotional state while gambling (i.e. negative reinforcement) (Brown, Rodda, & Phillips, 2004)



Psychological Model of Problem Gambling

An Escape/ Coping for stress and emotional vulnerability (Compensatory strategy)

- Like other addiction, gambling was traditionally regarded as a compensatory strategy, or simply a coping for mood disturbance in problem gamblers

An Escape/ Coping for stress and emotional vulnerability

- Gambling as an escape/coping
 - Escape model → problem gamblers are emotionally vulnerable, and have difficulty managing stress or dealing with crisis situations (2010, Australian Psychological Society).
 - Some gamblers have developed feelings of inadequacy and that gambling can help them to counteract their self deprecating feeling (Ladouceur et al., 2002)

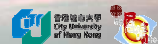


Psychological Model of Problem Gambling

A Learned Behaviour & product of Cognitive Error (direct response)

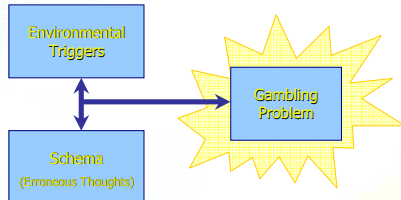
A product of Cognitive Error

- Gambling problem resulting from cognitive errors
 - Erroneous cognitions as the basis of the development and maintenance of gambling problems (Petry, 2005)
 - Problem gamblers share an illusion of control, irrational beliefs about gambling skills & biased attributions of gambling outcomes (Blaszczynski & Silove, 1995; Gaboury & Ladouceur, 1989)
 - The illusion of control often leads gamblers to think that they can control the games by using certain strategies and skills and can accurately predict a result over a period of time (Langer, 1975; 1983)
 - When gamblers win, they often attribute their success to their skills (Wagenaar, 1988)



Psychological Model of Problem Gambling

- Whilst our clinical experience tells us that, it also happens in this way



- A Learned Behaviour & product of Cognitive Error (direct response)



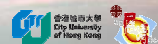
Psychological Model of Problem Gambling

- Based on our clinical experiences and assumption, both *escape* or *direct response* happen in each of the problem gamblers in particular episodes, with one might be more dominating than another

- It matches Blaszczynski & Nower (2002) suggested Pathway Model on problem gambling etiology,

- Behaviorally conditioned problem gamblers (pathway 1)
- Emotionally vulnerable problem gamblers (pathway 2)
- Antisocial impulsivist problem gamblers (pathway 3)

- In our integrated CBT group treatment, we expect a positive outcome for tackling both the *escape* and *direct response*, which means at least the acquisition of problem gambling behaviour through pathway 1 & 2 would be well entertained



Integrated CBT Group Treatment for Chinese Problem Gamblers

- Taking reference from literatures, 4 key factors have been addressed in the our group,
 1. Motivation
 2. Gambling Urge & Craving
 3. Behavioural & Cognitive factors in gambling
 4. Negative Emotional States

(Gooding & Tarrier, 2009; Wulfert et al., 2006; Oel, Raylu & Casey, 2010)



Integrated CBT Group Treatment for Chinese Problem Gamblers

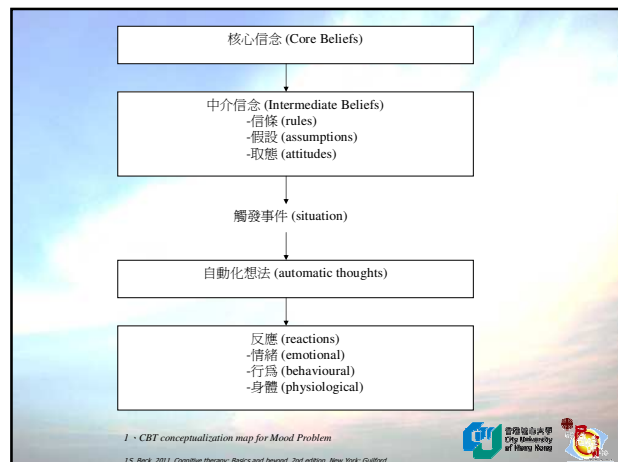
- CBT principles & techniques adopted
 1. Problem focused & Goal oriented
 2. Here & now
 3. Guided discovery (Event based analysis)
 4. Exploration on cognitive conceptualization
 5. Therapeutic alliance & collaboration
- Conceptualization framework adopted (Judith Beck, 2011)



Integrated CBT Group Treatment for Chinese Problem Gamblers

- Highlights of some important treatment components,
 1. Cognitive corrections
 - Understanding concept of randomness
 - Understanding erroneous beliefs, e.g., illusion of control
 - Awareness on inaccurate perceptions
 - Cognitive correction
 2. Relapse prevention
 - Identifying high risks situations
 - Correction of erroneous thoughts behind
 - Developing means to deal with the situations

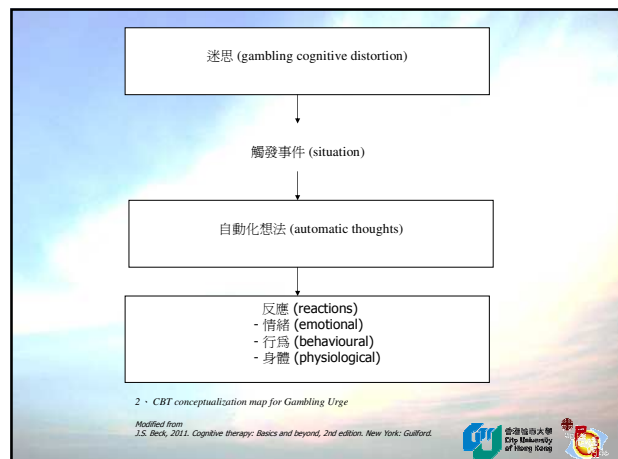
(Sylvain, Ladouceur & Boisvert, 1997; Ladouceur, Sylvain, et al., 2001)



Integrated CBT Group Treatment for Chinese Problem Gamblers

3. Treating Negative Emotional State
 - Identifying mood vulnerability leading to weak resistance to gambling and low self efficacy on resuming control
 - Understanding and conceptualizing its relation with gambling problem
 - Automatic Thoughts, Rules/Assumptions/Attitude, Core beliefs
 - Developing copings with mood problem
 - Practicing new behaviours to break the dysfunctional cycle

(Institute of Cognitive Therapy, City University of Hong Kong)



Method & Procedures

- Three terms:
 - Term 1 -- 9/12 -- 12/12
 - Term 2 -- 1/13 -- 4/13
 - Term 3 -- 9/13 -- 12/13 (just finished)
- Participants
 - M/18-65
 - Gambling problem: SOGs ≥ or above
 - Current casework following up
 - No severely acute depressive symptoms and/or suicide attempt/ideation within 3 months
 - With debt plan
 - Willing to complete entire process of experiment
- 38 participants
- 72% of attendance
- 15 exp. gp. members and 16 control gp. Members completed the pre & post test questionnaires
- Group Therapists
 - Prof. Daniel Wong, Dr. Catherine Chung, Mr. Patrick Lau & Miss Jennie Wan

Programme Structure & Group Process

香港城市大學
City University of Hong Kong

我的戒賭日誌

請按以下辦法一星期內將日誌的準確程度，0 分最少，100 分最滿。以下表格代表一星期中的一天。

日期	/	/	/	/	/	/	/
1. 戒賭大綱及細節的準確程度有多少? (完全不準 0 - 100 最準)							

Modified from Choi, S.H. Gambling Cure
 Robert Lohrman, Thilo Lohrman, BERT Overman, and Kelly Gifford, Jennifer Gubb, Stefan Dill, Gerald Tschann, Peter
 ©2012 Treatment group © Centre for Gambling Studies 2012

Method & Procedures

- Experimental design
 - Randomly assigned pretest - protest waitlist control group (for term 1), recruited control group (for the others)
 - 3 hrs, 10 sessions
- Measurement on dependent variables
 - South Oaks Gambling Screen (SOGs) (Lesieur & Blume, 1987)
 - Gambling Related Cognition Scale (GRCS) (Raylu & Oei, 2004)
 - Gambling Urge Scale (GUS) (Raylu & Oei, 2004)
 - Depression, Anxiety and Stress Scales Chinese version (DASS) (Anthony et al., 1998; Li et al., 2012)
 - Gambling Activity Record

Programme Structure & Group Process

香港城市大學
City University of Hong Kong

香港賭博紀錄

1. 賭博紀錄

- 與賭博、賭錢、賭機、或當地的賭博有關的...
- 賭博次數...
- 賭博金額...
- 賭博時間...
- 賭博地點...
- 賭博原因...
- 賭博後果...

2. 賭博紀錄

- 與身邊人討論賭博情況，感到安心...
- 與身邊人討論賭博的數字...
- 與身邊人討論賭博的賭本...
- 與身邊人討論賭博的賭本...
- 與身邊人討論賭博的賭本...
- 與身邊人討論賭博的賭本...
- 與身邊人討論賭博的賭本...

3. 賭博紀錄

- 感到痛苦，或感到大量金錢在手中時...
- 感到痛苦，或感到大量金錢在手中時...
- 感到痛苦，或感到大量金錢在手中時...
- 感到痛苦，或感到大量金錢在手中時...
- 感到痛苦，或感到大量金錢在手中時...
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- 感到痛苦，或感到大量金錢在手中時...
- 感到痛苦，或感到大量金錢在手中時...

4. 賭博紀錄

- 感到痛苦，或感到大量金錢在手中時...
- 感到痛苦，或感到大量金錢在手中時...
- 感到痛苦，或感到大量金錢在手中時...
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- 感到痛苦，或感到大量金錢在手中時...

Programme Structure & Group Process

Session	Theme
1	Acquaintance & Introduction of CBT Enhancing Motivation
2	Triggers & physiological response
3	Risk scenarios & the linkage between thought & urge
4	Examining gambling distortion & belief
5	Building up cognitive & behavioural coping strategies on urge
6	Negative emotion & the linkage between thought & mood
7	Examining dysfunctional automatic thoughts & rules
8	Building up cognitive & behavioural coping strategies on negative emotions
9	Relapse prevention
10	Summary & consolidation

Programme Structure & Group Process

賭博應性教習圖 (1)

選擇一組在賭博時出現的賭博問題，分析當中的心理、情緒及行為。

```

      graph TD
        A[引發點] --> B[衝動感覺]
        B --> C[身體訊號]
        C --> D[結果]
        D --> E[賭博後果]
        E --> F[情緒反應(負面/正面)]
        F --> G[行為反應]
        G --> H[結果]
      
```

賭博應性教習圖 (2)

選擇一組在賭博時出現的賭博問題，分析當中的心理、情緒及行為。

```

      graph TD
        A[引發點] --> B[衝動感覺]
        B --> C[身體訊號]
        C --> D[結果]
        D --> E[賭博後果]
        E --> F[情緒反應(負面/正面)]
        F --> G[行為反應]
        G --> H[結果]
      
```

Programme Structure & Group Process

課程名稱 - 個人治療	第1期	第2期	第3期	第4期	第5期
課程目標	1. 協助個案了解及處理賭博問題	2. 協助個案了解及處理賭博問題	3. 協助個案了解及處理賭博問題	4. 協助個案了解及處理賭博問題	5. 協助個案了解及處理賭博問題
課程內容	1. 賭博問題 - 成因與處理 - 個人治療	2. 賭博問題 - 成因與處理 - 個人治療	3. 賭博問題 - 成因與處理 - 個人治療	4. 賭博問題 - 成因與處理 - 個人治療	5. 賭博問題 - 成因與處理 - 個人治療
課程特色	1. 個人治療 - 協助個案了解及處理賭博問題	2. 個人治療 - 協助個案了解及處理賭博問題	3. 個人治療 - 協助個案了解及處理賭博問題	4. 個人治療 - 協助個案了解及處理賭博問題	5. 個人治療 - 協助個案了解及處理賭博問題
課程時間	1. 個人治療 - 協助個案了解及處理賭博問題	2. 個人治療 - 協助個案了解及處理賭博問題	3. 個人治療 - 協助個案了解及處理賭博問題	4. 個人治療 - 協助個案了解及處理賭博問題	5. 個人治療 - 協助個案了解及處理賭博問題
課程地點	1. 個人治療 - 協助個案了解及處理賭博問題	2. 個人治療 - 協助個案了解及處理賭博問題	3. 個人治療 - 協助個案了解及處理賭博問題	4. 個人治療 - 協助個案了解及處理賭博問題	5. 個人治療 - 協助個案了解及處理賭博問題
課程費用	1. 個人治療 - 協助個案了解及處理賭博問題	2. 個人治療 - 協助個案了解及處理賭博問題	3. 個人治療 - 協助個案了解及處理賭博問題	4. 個人治療 - 協助個案了解及處理賭博問題	5. 個人治療 - 協助個案了解及處理賭博問題

Research Result

Findings

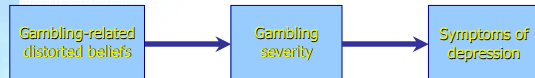
1. Problem gamblers had fewer **gambling behaviors**, fewer **gambling-related distorted beliefs**, fewer **depressive, anxiety and stress-related symptoms** and a lower level of **gambling urge** at the end of group treatment
2. Significant changes were observed in the **severity of gambling** and **frequency of gambling**
3. 40% changed from 'pathological gamblers' to 'gamblers with some problems with gambling'
4. Change in **gambling-related beliefs** was linked to a change in **severity of gambling** and to a change in **gambling urge**.
5. Change in **severity of gambling** was linked to a change in **depressive symptoms**

Research Result

- From the data of term 1 & 2
 - Aged 41-60 (60%)
 - Secondary educated (~100%)
 - First gambling at 20 or below (~60%)
 - Gambling for over 20 yrs, (60.0%, 45.0%)
 - In debt (83.3%, 75%)
- SOGS score
 - Exp. gp. 100% 'Probable pathological gambler' → 60%, 40% down to 'Some problems with gambling', No sig. change in control gp.
 - Exp. gp. Mean score: 14.38 → 10.40
Control gp. Mean score: 11.19 → 10.38
- t-test result
 - Treatment effectively reducing gambling severity ($t=2.96$, $p<0.01$)
 - Treatment effectively reducing frequency of gambling ($t=2.22$, $p<0.04$)

Research Result

- Our interpretation



- Probable linkage of change in gambling related distorted beliefs on change in symptoms of depression

Research Result

- Gambling frequency
 - Statistically sig. decrease in gambling frequency
 - 13.3% of exp. gp. 'did not gamble in the past 1 month'
 - 33.3% → 13.3% exp. gp. 'gambling for more than 16 times in past 1 month'

Separate regression result

- Gambling distorted belief with gambling severity (.578*)
- Gambling distorted belief with gambling urge (.857***)
- Gambling urge with gambling severity (.562*)
- Gambling severity with depressive symptoms (.639*)

(* $p<.05$, ** $p<.005$, *** $p<.0005$)

Coming up Research & Manual

- Limitations
 - Small sampling size
 - Ongoing research, term 3 just finished with a better attendance
 - Cannot distinguish CBT group or group treatment's effect
 - More sophisticated research design,
 - 1. CBT group treatment alone
 - 2. CBT individual treatment alone
 - 3. Both CBT group and individual treatment
 - Male only
 - Due to ethical consideration, only random assigned waitlist for term 1
 - No long term effect analysis
 - 6 month/12 month following up could be implemented

Coming up Research & Manual

- Research finding will be published afterwards
- Please keep updating our website for detailed information
- Group material and programme plan will be compiled in the *Manual for CBT treatment group for Chinese problem gamblers*, expectedly being published in 2014



THE END

Thank you!!



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