



The Problem Gambling Research and Treatment Centre

*An initiative of the Victorian Government, the
University of Melbourne and Monash University*

Targeted Interventions for Problem Gambling: What Works for Whom?

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- Diverse range of treatment options available
 - Pharmacological (antidepressants, mood stabilisers, opioid antagonists); psychological (CBT, MI, mindfulness, 12-step, integrative)
- Cochrane review (Cowlshaw et al., 2012):
 - Short term CBT; MI for reduced gambling behaviour
- Evidence-based guideline (PGRTC, 2011):
 - Low grade recommendation for naltrexone
 - Several higher grade recommendations for CBT, MI, and practitioner-delivered
- Low quality evidence; no treatment satisfies the standards of an empirically supported intervention





- Treatment complicated by heterogeneity
- Heterogeneity may have implications for individually tailored interventions
 - E.g., Presence of a comorbid disorder may influence treatment selection and effectiveness
 - May serve to maximise treatment response and client satisfaction, and reduce attrition and treatment costs
- Little research attention
 - Excluded individuals with comorbidity
 - Applied same intervention to multiple subgroups
 - Failed to measure comorbidity
 - Used small samples precluding subgroup analyses
- Post hoc analyses; few targeted interventions



- Females comprise 25-40% of problem gamblers
- Gender differences (Dowling, in press)
 - Preferred gambling forms, motivations and triggers, course, gambling consequences, and psychiatric comorbidities
- Impact of gender on treatment outcomes
 - Mixed findings but most evidence indicates there are no gender differences in treatment outcome or dropout
- Targeted interventions: female problem gamblers
 - Several case/multiple baseline design studies
 - RCT for female problem gamblers (Dowling et al., 2006, 2007, 2009): CBT effective; some caution for delivering group interventions, controlled gambling and abstinence are viable treatment goals



- Differences across age groups
 - Age of onset, problem duration, preferred gambling forms, gambling frequencies, gender, gambling consequences
- Impact of age on treatment outcomes
 - Mixed findings: difficult to draw conclusions
- Targeted interventions: older adult problem gamblers
 - “Naturalistic” pharmacotherapy for gamblers over 60 years (Grant & Grosz, 2004)
 - Naltrexone (urges), antidepressant (depression) + CBT
 - 8/14 (57%) achieved sustained abstinence



- Targeted interventions: youth problem gamblers
 - Few young people seek treatment
 - CBT for four adolescent males (Ladouceur, Boisvert, & Dumont, 1994):
 - Clinically sig improvements in perceptions of control
 - Reduced gambling severity; 3/4 abstinent at six-months
 - RCT of brief interventions for college students (Petry et al., 2009)
 - 10 min brief advice, one-session MET or one session MET plus 3 sessions CBT all effective
 - No differences between intervention strategies
 - Treatment model for youth (Gupta & Derevensky, 2000)
 - Predicated on findings that youth gamble partially from the need to “escape” underlying problems
 - 36 male youth from 14 to 21 over 5 year period





- **Comorbidity**
 - Population studies (Lorains et al., 2011): 28.1% AUD
 - Treatment-seeking studies (Dowling et al., in sub): 21.2% AUD, 18.2% alcohol abuse, 15.2% alcohol dependence
 - Gamblers with comorbid AUDs have more severe gambling and psychiatric symptoms
- **Impact of comorbid AUDs on treatment outcomes**
 - Most studies suggest AUDs associated with poor outcomes
- **Targeted interventions**
 - Current trend is to recommend opioid antagonists
 - Crockford & el-Guebaly (1998): Case study; naltrexone/SSRI
 - Toneatto et al. (2009): RCT; Both naltrexone+CBT and placebo+CBT effective but no differences between conditions

- **Comorbidity**

- Population studies (Lorains et al., 2011): 17.2% illicit SUDs
- Treatment-seeking studies (Dowling et al., in sub): 7.0% SUDs, 6.6% abuse, 4.2% dependence, 11.5% cannabis
- Gamblers with comorbid SUDs have higher gambling severity; cravings, psychiatric symptoms, psychosocial difficulties; longer gambling histories; lower control

- **Impact of comorbid SUDs on treatment outcome**

- Mixed findings, but most studies indicate SUDs are not related to treatment outcome

- **Targeted interventions**

- Korman et al. (2009): anger, half with SUDs





- **Comorbidity**

- Population studies (Lorains et al., 2011): 23.1% MDEs
- Treatment-seeking studies (Dowling et al., in sub): 29.9% MDD, 6.7% dysthymic disorder

- **Impact of depression on treatment outcomes**

- Most evidence suggests that depression does not impact on gambling treatment outcomes

- **Targeted interventions**

- Current trend in pharmacotherapy literature is to recommend SSRIs when there is co-occurring depression
- No empirical studies

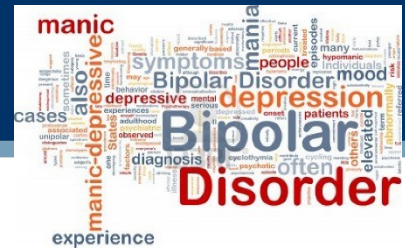


- **Comorbidity**
 - Population studies (Lorains et al., 2011): 37.4% anxiety disorder, 11.1% GAD
 - Treatment-seeking studies (Dowling et al., in sub): 17.6% anxiety disorder, 14.9% social phobia, 14.4% GAD, 13.7% panic disorder, 12.3% PTSD, 8.2% OCD
 - Gamblers with high PTSD symptoms report greater gambling severity, psychiatric symptoms, impulsivity, and dissociation
- **Impact of comorbid anxiety on treatment outcomes**
 - Surprisingly little research
 - Mixed findings for CBT





- Targeted interventions
 - Treatment preferences of individuals with comorbid PTSD (Najavits, 2011)
 - Consistently preferred treatments for PTSD not gambling
 - Individual therapy, seeking safety, exposure therapy, and CBT for PTSD
 - Current trend is to recommend SSRIs when there are co-occurring anxiety symptoms
 - Grant & Potenza (2006)
 - Open-label pilot study
 - Escitalopram effective for 8/13 (62%) with comorbid anxiety disorder



- **Comorbidity**
 - Population studies (Lorains et al., 2011): 9.8% bipolar disorder or manic episodes
 - Treatment-seeking studies (Dowling et al., in sub): 8.8% bipolar disorder
- **Targeted interventions**
 - Current trend is to select lithium
 - Several case studies of lithium/topiramate (Moskowitz, 1980; Dell-Osso, 2005; Nicolato et al., 2007)
 - Hollander et al. (2005)
 - 10-week double blind placebo controlled trial of 29 gamblers with comorbid spectrum disorders
 - Sustained-release lithium significantly improved gambling behaviour and bipolar symptoms compared to placebo
 - SSRIs may be contraindicative (Hollander et al., 1998)



• Comorbidity

- Treatment-seeking studies (Dowling et al., in sub): 9.3%
- Gamblers with a history of ADHD have higher gambling severity, gambling cognitions, psychiatric comorbidities, risk of suicide, and impulsivity

• Targeted interventions

- Grall-Bronnec et al. (2011) recommendations: methylphenidate, atomoxetine, or intensive CBT
- Current trend is to recommend psychostimulants or dopaminergic medications
- Black (2004)
 - 8-week open label pilot study of bupropion to 10 pathological gamblers with ADHD features
 - 7/10 very much or much improved



- **Comorbidity**
 - Generally low, with treatment-seeking studies (Dowling et al., in sub): 4.7% psychosis
- **Targeted interventions**
 - Chambers & Potenza (2001)
 - Case study of middle-aged women with comorbid schizophrenia who had previously been treated with haloperidol
 - Olanzapine + gambling psychosocial therapy demonstrated clinical improvement and gambling behaviour
 - No controlled trials

- **Comorbidity**
 - Treatment-seeking studies (Dowling et al., in sub): 47.9% PDs, 17.6% Cluster B, 12.6% Cluster C, 6.1% Cluster A.
 - Gamblers with comorbid PDs have longer gambling histories; higher problem severity, gambling consequences, impulsivity, psychiatric symptoms, substance use difficulties, and medical problems
- **Impact of PDs on treatment outcomes**
 - Presence of Cluster B sig predictor of dropout (CBT)
- **Targeted interventions**
 - APD: Intensive and prolonged CBT (Blaszczynski & Nower, 2002); CBT, contingency management (Dowling et al., in sub)
 - BPD: DBT, schema-focused therapy, mentalisation-based treatment and interpersonal therapy (Dowling et al., in sub)



- **Comorbidity**

- Treatment-seeking problem gamblers (Korman et al., 2009): 64.5% clinically significant anger problems

- **Targeted interventions**

- Korman et al. (2009)

- RCT of modified DBT and TAU control group
- 42 problem gamblers with comorbid anger problems (half with substance use disorders)
- Both improved gambling at post-treatment and 12 weeks but DBT improved less trait anger at 12 weeks





- **Impact of urges on gambling treatment**
 - Stronger urges and cravings seem to be associated with a more positive response to pharmacologic treatments (opioid antagonists)
- **Targeted interventions**
 - Current trend in pharmacotherapy literature is to recommend opioid antagonists when there is co-occurring urges or cravings to gamble
 - Grant et al. (2008)
 - Double-blind placebo controlled trial
 - Targeted naltrexone intervention
 - 77 pathological gamblers who reported gambling secondary to at least moderate urges or cravings
 - Significant reduction in gambling urges for naltrexone over placebo but no differences in three doses of naltrexone



- **Heterogeneity**
 - Problem gamblers classified on the basis of their nominated gambling form differ on various dimensions
- **Impact on treatment outcomes**
 - Limited evidence that gambling activity not associated with treatment outcome (naltrexone or nalmefene)
- **Targeted interventions**
 - Most treatment outcome literature assumes all forms of gambling are equivalent
 - Several studies have found that CBT is effective for EGM problem gamblers
 - Limited evidence that olanzapine not effective for EGM gamblers



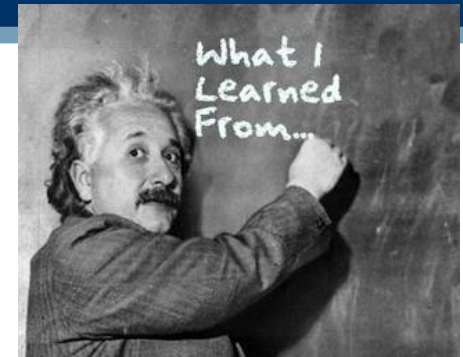
- Three pathways (Blaszczynski & Nower, 2002):
 1. 'normal' or non-pathologically disturbed gamblers
 - counseling and minimal intervention programs
 2. emotionally disturbed or vulnerable gamblers
 - extensive psychotherapeutic interventions
 3. biologically-based impulsive gamblers
 - intensive CBT and medication
- Ledgerwood and Petry (2010)
 - Differential treatment outcomes to CBT and/or GA
 - All subtypes had similar patterns in treatment response
 - But Pathway 1 started with less severe gambling problems and were most likely to be improved



- Three clinical subtypes (Dannon et al., 2006):
 - 1. The “impulsive” subtype
 - Pharmacological interventions that target impulsive behaviour, such as bupropion or mood stabilisers
 - 2. The “obsessive-compulsive” subtype
 - Psychoactive medications that target depression, anxiety, and compulsive behaviour, such as SSRIs, and SNRIs
 - 3. The “addictive” subtype
 - “Anti-addiction” psychoactive agents, such as bupropion or opioid antagonists



- There is growing evidence that there is significant heterogeneity in problem gambling
- However, to date, we have very little evidence on which to base treatment recommendations
- Post-hoc subgroup analyses continue to produce inconsistent findings
- Pharmacotherapy literature has contributed more to this area, with some studies evaluating psychotherapeutic agents according to the dominant presenting comorbid psychopathology
- Other important constructs on which to subgroup



Subgroup	Intervention/s
Women	CBT
Youth	CBT, Brief advice, MET, MET+CBT
Elderly	Naltrexone or antidepressants+CBT
AUDs	Naltrexone+SSRIs, naltrexone+CBT, CBT
SUDs	Modified DBT?
Depression	SSRIs?
Anxiety	SSRIs?
PTSD	Individual therapy? Seeking safety? Exposure therapy? CBT?
APD	Intensive and prolonged CBT? Contingency management?
BPD	DBT? Schema-focused? Mentalisation-based? Interpersonal?
Bipolar	Lithium
ADHD	Bupropion. Psychostimulants? CBT?
Psychosis	Olanzapine+psychosocial therapy
Anger	Modified DBT
Urges	Naltrexone
EGMs	CBT



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