Treatment Planning for Problem Gamblers

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Abstract: Treatment dropout and relapse among problem gamblers (PGs) are high. Due to the heterogeneity of PGs, one form of treatment (i.e., mono-therapy) may not be sufficient in maintaining PGs in treatment or leading to successful outcomes. This paper aims to provide an overview of the status of the current problem gambling (PG) treatments before discussing tailoring interventions to address this heterogeneity. Although a number of effective pharmacological and psychological interventions exist for treating PG, currently there is no one treatment specifically recommended. Thus, treatment programs need to be tailored to individual needs. This requires good assessment of the problem behaviour and associated factors (e.g., risk and protective factors, gambling consequences, and comorbid psychological problems). Pictorial case formulations showing causal and maintenance factors would aid in choosing relevant techniques to address these factors. Treatment goals, controlled gambling versus abstinence, need to be decided with clients prior to commencing treatment. Given the high dropout rate among PGs, and depending on clients' willingness to make changes, what is initially covered in treatment is vital. Different combinations of interventions need to be chosen depending on clients' presenting problems. Treatment suggestions for different types of PGs are discussed. Finally, good measures (assessing symptoms, cognitions and behaviours) are required to track progress and evaluate outcomes.

Keywords: gambling; treatment; heterogeneity; gamblers, intervention

A number of researchers have highlighted the heterogeneous nature of problem gamblers (PGs) (Milosevic & Ledgerwood, 2010; Yau & Potenza, 2014). PGs do not only vary in their reasons for commencing gambling (e.g., to win money, be sociable, have fun, avoid negative emotions, or cope with stress), but also the factors involved in the development and maintenance of their gambling

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problem (Raylu & Oei, 2002). Theoretical models that conceptualise problem gambling (PG) (e.g., Blaszczynski & Nower, 2002) have integrated pathways consisting of complex interactions between genetic, biological, personality, psychological, cognitive, and environmental variables. Furthermore, there are gender differences not only in gambling motivations and risk factors among PGs, but also in gambling behaviours, development of PG, treatment response, recovery from PG and comorbidity (Díez, Aragay, Soms, Prat, & Casas, 2014; Slutske, Blaszczynski, & Martin, 2009).PGs also differ in gambling severity, motivations, cognitions, demographics, as well as clinical and personality variables, depending on the form of gambling chosen (Petry, 2003; Raylu & Oei, 2002). For example, strategic gamblers (play high skill, low chance games such as sports betting compared to low skill, high chance games such as gambling machines) tend to be younger, male, have higher levels of psychopathology and novelty seeking, but lower levels of cooperativeness (Moragas et al., 2015; Odlaug, Marsh, Kim, & Grant, 2011). A number of researchers have also found differences depending on the modes gamblers use to gamble (e.g., online vs. non-online gambling). Online gamblers are more likely to be younger, play more games, report higher PG rates and engage in sports betting, but are less likely to seek treatment (Gainsbury, Russell, Hing, Wood, & Blaszczynski, 2013). Jimenez-Murcia et al. (2011) found that online PGs had slightly higher education and socioeconomic status levels, spent more on gambling and had bigger debts than non-online gamblers.

The course and progression of gambling vary from one gambler to the next (Sartor, Scherrer, Shah, Xian, Volberg, & Eisen, 2007; Westphal, 2007). PGs also vary in gambling severity and their nature of gambling (e.g., infrequent transient PG episodes, persistent extensive gambling or gambling that is progressive in nature (Lindberg, Fernie, & Spada, 2011; Westphal, 2007). Furthermore, about a third of PGs recover naturally (Slutske, 2006).

Milosevic and Ledgerwood's (2010) review identified three subtypes of PGs based on gambling motivations, psychopathology, and personality. These included those who are 'behaviourally conditioned' (lacking maladaptive personality traits or psychopathology and gambling due to social pressure and/or erroneous thinking), 'emotionally vulnerable' (low impulsivity and/or sensation seeking traits but increased depression and/or anxiety symptoms and thus, gambling to regulate dysphoric mood), and 'antisocial impulsivist' (high antisocial, impulsive and/or sensation seeking traits and gambling due to impulsivity or to increase positive emotional states). Other researchers have suggested similar three or four subtypes usually ranging from low to high levels of gambling severity, or varying degrees of maladaptive personality traits and psychopathology (Álvarez-Moya et al., 2010; Nower, Martins, Lin, & Blanco, 2012; Suomi, Dowling, & Jackson, 2014).

Due to the heterogeneity of PGs, mono-therapy (e.g., pharmacotherapy only) may not be sufficient in maintaining PGs in treatment and/or leading to successful treatment outcomes. Attrition from psychological and pharmacological treatment, as well as risk of relapse among PGs, is high (Hodgins & el-Guebaly, 2004; Melville, Casey, & Kavanagh, 2007; Rosenburg, Dimur, & Dannon, 2013). Researchers have started highlighting the need to tailor treatments to address this heterogeneity (Shaffer & Shaffer, 2014; Yau & Potenza, 2015). With the exception of a few researchers (e.g., Yau & Potenza, 2015), very few have provided such detailed recommendations. Thus, this paper aims to reinforce and expand on this work. More specifically, it aims to provide an overview of the status of the current PG treatments before discussing tailoring interventions to address this heterogeneity. To complete this review, an extensive investigation of the database PsycINFO (1840–now) was conducted using different combinations of the following keywords: review, gambling, and treatment.

Overview of Status of the Current PG Treatments

Pharmacological interventions.

There are mixed results in relation to the effectiveness of selective serotonin reuptake inhibitor (SSRI) antidepressants (e.g., clomipramine, fluvoxamine, paroxetine, and sertraline) with PGs (Brewer, Grant, & Potenza, 2008). Opioid receptor antagonists (e.g., naltrexone) that are traditionally used to manage opioid/alcohol cravings show more consistent effectiveness compared to SSRIs (Brewer et al., 2008). Some mood stabilisers including anticonvulsants with mood stabilising properties (e.g., topiramate, carbamazepine, valproate, lithium carbonate) have shown to be superior to placebo, while others (e.g., olanzapine) has not (Leung & Cottler, 2008). Bupropion, often used to manage nicotine withdrawal/urges has also shown to be superior to placebo (Black et al., 2007). Other drugs that have shown promising preliminary evidence include *N*-acetyl cysteine (a glutamate modulating agent (Grant, Kim, & Odlaug, 2007), modafinil (an atypical stimulant; Zack & Poulos, 2008), tolcapone, enzyme catechol-O-methyl-transferase inhibitor (Grant, Odlaug, Chamberlain, Hampshire, Schreiber, & Kim, 2013) and ecopipam, a selective receptor antagonist (Grant et al., 2014). Despite such studies, meta-analytic studies (Pallesen et al., 2007; Bartley & Bloch, 2013) have failed to recommend one pharmacotherapy as superior to others.

Psychological treatments.

Psychodynamic therapy assists PGs to deal with core conflicts and unconscious meanings of gambling (Rosenthal, 2008). The evidence of effectiveness for such treatments are reliant on case studies or multimodal treatment programs that have psychodynamic therapy as one of their components (Rosenthal, 2008).

Cognitive, behaviour therapy (CBT) includes a number of techniques including psychoeducation, cognitive restructuring, behavioural strategies, problem solving, exposure therapy, and relapse prevention. CBT has the most outcome literature and has been most often applied (Raylu & Oei, 2010). However, Cowlishaw and colleagues (2012) review of CBT studies found that although CBT at 3 months post-treatment showed medium to large treatment effects, at 9-12 months post-treatment showed small non-significant effects, questioning the durability of CBT.

Self-help interventions include self-help books/manuals and self-directed internet based treatments, which often contain CBT techniques (Raylu, Oei, & Loo, 2008). Such treatments may help reduce gambling for some individuals but it appears that inclusion of some (not necessarily extensive) clinician contact (via phone or face-to-face) improves outcomes (Rash & Petry, 2014).

Brief interventions include brief advice, personalised feedback, and motivational based interventions. Research show that outcomes can be similar to CBT (Toneatto & Gunaratne, 2009; Carlbring, Jonsson, Josephson, & Forsberg, 2010). It is, however, unclear which form of brief intervention is superior (Rash & Petry, 2014).

Mindfulness-based CBT includes intensive formal mindfulness practice in addition to CBT techniques. Two case studies showed PGs that did not respond to CBT, were successfully treated with mindfulness techniques (de Lisle, Dowling, & Allen, 2011; Toneatto, Vettese, & Nguyen, 2007). Toneatto, Pillai and Courtice (2014) found that compared to a waitlist control (*n*=9), the CBT plus mindfulness intervention (*n*=9) significantly reduced gambling severity, urges and psychiatric symptoms at post-treatment and 3 month follow-up. Both the Toneatto studies highlighted that such interventions may be beneficial only if gamblers continue to participate in mindfulness practice.

Gamblers Anonymous (GA) is a 12-step peer support group. GA appears to be beneficial for some gamblers especially when associated with professional treatment (Rash & Petry, 2014). Studies also show that GA attendance improve outcomes of multimodal treatments (Raylu & Oei, 2010). Some studies show CBT outcomes are superior to GA (e.g., Petry et al., 2006), while others (mainly therapist-led 12 step groups) show no difference (e.g., Toneatto & Dragonetti, 2008). However, we cannot infer that GA is the active ingredient in improving PG as more research is needed to assess the main factors involved in recovery among this group (e.g., social support, readiness to change).

Couple/family intervention. Kourgiantakis, Saint-Jacques and Tremblay (2013) review discussed a number of studies that showed enhancing significant others (SOs) coping skills even when gamblers are not in treatment is related to improvement in gambling behaviours, SO distress and relationship satisfaction. Couple therapy with PGs and their SOs also show improvement in gambling behaviours as well as their relationships (Lee & Awosoga, 2015).

Overview of the Treatment Literature

The PG treatment literature lags behind the treatment literature of other psychological problems such as depression and anxiety (Gooding & Tarrier, 2009; Yau & Potenza, 2015). Treatment in some form appears better than no treatment or waitlist control conditions (Rash & Petry, 2014). Although a number of effective interventions exist for treating PG, currently, there is no recommended pharmacological or psychological intervention (Grant & Odlaug, 2014). The Problem Gambling Research and Treatment Centre (PGRTC; 2011) presented guidelines to treat PG based on evidence found using a comprehensive and systematic review process. They supported the use of CBT, motivational interviewing/enhancement therapy and clinician delivered treatment with PGs. They also highlighted some evidence supporting using naltrexone to reduce gambling severity among PGs, and suggested not using antidepressants to treat those with only gambling problems. For some interventions (e.g., treatments with clinician contact, couple/family interventions, and GA) that have found to be related to good treatment outcomes, further research is needed to tease out the active ingredient (e.g., social support, and the impact of the clinician-client relationship).

Treatment planning for PGs.

Good assessment and case formulation is crucial in guiding treatment planning (Raylu & Oei, 2010). A planned assessment of the problem behaviours and associated factors (e.g., negative consequences of gambling, risk and protective factors, and comorbid psychological problems) is required. This will lead to adequate case formulation which allows for a 'helicopter view' of the management of the presenting problems (Raylu, Oei, Loo, & Tsai, 2015).

A pictorial case formulation approach showing causal and maintenance factors would aid in choosing relevant techniques to address these factors (Boschen & Oei, 2008). As gamblers vary in their presenting problems (e.g., comorbid maladaptive personality traits or psychopathology) or gambling consequences (e.g., relationship problems), a different combination of interventions is necessary given gamblers' presenting problems (Shaffer & Shaffer, 2014; Suomi et al., 2014; Yau & Potenza, 2015). It has already shown in the substance abuse literature that treating comorbid problems helps reduce relapse (Brown, Evans, Miller, Burgess & Mueller, 1997). For example, detoxification from substances for substance abusing PGs may help them respond better to psychological intervention. Mood stabilisers and antidepressants maybe helpful for those with comorbid mood disorders (Bullock & Potenza, 2013). Combining treatments may also enhance treatment effects (Yau & Potenza, 2015). Grant et al. (2014) showed that the addition of *N*-acetylcysteine to imaginal desensitization (ID) enhances effects of ID at 3 month follow up for nicotine dependent PGs.

Reviews have recommended clinician delivered interventions, especially for more severe PGs (Rash & Petry, 2014; PGRTC, 2011). With good assessment and adequate case formulation, clinicians can decide what combination of intervention is necessary to manage the presenting problems and help setup monitoring of progress and outcomes of the tailored therapy using measures that assess symptoms, cognitions and behaviours. However, self-help interventions might appeal to those unlikely to seek treatment, with less severe gambling or who live in remote areas where professional help is not readily available (Raylu et al., 2008). This is important as studies suggest that only 6-12% of PGs seek professional treatment (Rash & Petry, 2014). Brief treatments (e.g., brief advice, psychoeducation, personalised feedback, motivational interviewing or short CBT) might be attractive to those unlikely to continue treatment, prefer less intensive interventions or with less severe gambling (Alvarez-Moya et al., 2010; Yau & Potenza, 2015).

Prior to commencing treatment, the identification of treatment goals is necessary. Instead of just focussing on abstinence as a treatment goal, a harm minimisation approach should be considered. Treatment goals not only differ from gambler to gambler, they may fluctuate over the course of one's life (Stea, Hodgins & Fung, 2015). Both control gambling and abstinence treatment goals have been related to positive outcomes (Dowling, Smith, & Thomas, 2009; Stea et al., 2015). Working with controlled gambling goals (if preferred by clients) rather than pushing abstinence might built rapport with these clients, and help them naturally progress towards an abstinence goal if controlled gambling is not working.

We believe, given the high dropout rate among PGs, what is covered initially in treatment is vital. For PGs not ready to change their gambling behaviours, increasing motivation and awareness of gambling problems is important. This can be achieved via psychoeducation of factors that play a role in the development and maintenance of PG, self-monitoring of gambling behaviours and motivational interviewing strategies (Raylu & Oei, 2010). This may also mean allowing PGs to identify their key presenting problem(s) that may not necessary be gambling (e.g., relationship problems), and working on them (which may help reduce gambling severity). A client centred approach using motivational interviewing may help reduce treatment attrition.

For those motivated to change but are struggling to control their gambling, basic strategies to stabilise gambling may be especially helpful in the early stages of treatment. Stabilisation of gambling can involve identifying and dealing with triggers using short term strategies such limiting access to money and avoidance of triggers (Raylu & Oei, 2010). For online gamblers, additional strategies would include closing online gambling accounts, deleting gambling related bookmarks and history, unsubscribing from gambling sites, as well as accessing software to block gambling websites (on

desktops, mobile phones and tablets) and online tools to block advertisements, banners and pop-ups (Young, n.d.). Longer term strategies such as increasing engagement in pleasant/alternative activities especially during high risk times is another effective way to deal with triggers (Raylu & Oei, 2010). Teaching PGs to cope with gambling urges and relapse prevention strategies (using similar techniques suggested for substance use problems) are also important in preventing relapse (Raylu & Oei, 2010).

Different types of interventions may be useful for some PGs depending on their presenting problems. As psychodynamic therapy is lengthy and intensive, it may be ideal for PGs with maladaptive personality traits and/or childhood trauma (Korn & Shaffer, 2004). Intervention that improves self-monitoring, motivation, impulse control, relapse risk, and that considers long term costs of gamblers' decisions could also be helpful for individuals with maladaptive personality traits (Alvarez-Moya et al., 2010; Ramos-Grille et al., 2015).

Identifying and challenging dysfunctional cognitions may be required for some PGs (Oei & Goh, 2015; Oei & Raylu, 2015). Severe PGs are more likely to endorse cognitive distortions about gambling (Cunningham, Hodgins, & Toneatto, 2014). Raylu and Oei (2010) discussed a number of cognitions and related interventions that may be relevant for some PGs. *Illusion of control* involves the belief one can control gambling outcomes directly (e.g., gambling at specific gaming machines/tables) or indirectly (gambling only when feeling lucky). Some PGs also incorrectly interpret gambling outcomes which strengthen the illusion of control and encourages continued gambling (e.g., *gamblers fallacy* – a string of losses is seen as an indication that a win is 'very near'). Treatment involves psychoeducation that highlights that the outcome of each wager is independent to any other, and although gambling forms differ in the extent of skill involved, outcomes of most gambling forms are dependent on only luck (e.g., gaming machines) and outcomes of none of the gambling forms are dependent on only skill. It also involves helping clients challenge their irrational beliefs using cognitive restructuring techniques. Using behavioural experiments (e.g., roulette players predicting numbers/colours without actually placing a bet) can be effective.

Two metacognitions have also found to predict gambling behaviour including negative beliefs about thoughts being uncontrollable or dangerous, and to a lesser degree the need to control such thoughts (Lindberg, Fernie, & Spada, 2011). Such cognitions can be addressed by socialising PGs to the metacognitive approach/effects of their thinking, cognitive restructuring techniques and/or metacognitive therapy techniques to help disengage from maladaptive coping for better emotional regulation (Lindberg et al., 2011).

Behavioural techniques (e.g., abdominal breathing and relaxation exercises) can be used to manage factors that can lead to lapses such as anxiety, urges and stress (Raylu & Oei, 2010). For

gamblers with significant urges, exposure to gambling cues (e.g., picture of a gambling institute/machine or listening to taped music of a gambling environment) and triggers/gambling situations (imaginal or in-vivo exposure) could help with gradual habituation of urges (Oakes, Battersby, Pols, & Cromarty, 2008; Symes & Nicki, 1997). CBT (compared with CBT plus exposure with response prevention) has been related to higher treatment compliance and lower attrition during treatment (Jimenez-Murcia et al., 2012). This highlights the importance of considering clients' readiness and necessity to return to the gambling environment when designing such in-vivo interventions. Opiate receptor antagonists may also be suitable for PGs with significant gambling urges and family history of alcohol problems (Bullock & Potenza, 2013).

The limited literature on mindfulness based psychotherapy show that it may be beneficial only if gamblers continue to participate in mindfulness practice. This may be relevant for PGs who do not respond to treatments such as CBT, but may not be suitable for PGs seeking sensation as participants are required to be still for long periods (de Lisle et al., 2012).

A number of additional interventions may aid treatment outcome. First, although a large portion of PGs do not choose self-exclusion programs (voluntarily prohibiting oneself from selected gambling institutes) and such programs do not fully prevent people from gambling in excluded sites, other sites or other gambling forms, many participants report improvement of gambling behaviours and comorbid problems (Gainsbury, 2014). Second, although GA is often refused even when encouraged by professionals, it has shown to help some gamblers as well as aid outcomes of other interventions (Rash & Petry, 2014; Raylu & Oei, 2010).

Family involvement in treatment is related to better treatment outcomes for both the gambler and family members, even when gambler is not in treatment (Kourgiantakis et al., 2013). When SOs change their behaviours, this could encourage PGs to make changes to their behaviours. Interventions with SOs could include helping them understand PG via psychoeducation, and teaching them strategies to cope with gamblers' behaviors (depending on their stage/readiness of change) and resulting negative consequences (e.g., relationship problems) (Raylu & Oei, 2010).

Summary

There is significant heterogeneity among PGs. No one treatment (especially mono-treatment) is strongly supported by the evidence. Thus, treatments programs need to be tailored to individual needs and techniques applied accordingly. In order to achieve this good assessment of the problem behaviour as well as the factors associated with the behaviour is essential. This will lead to adequate case formulation which is the heart and soul of individually tailored therapy. Finally, good measures

(assessing symptoms, cognitions and behaviours) are required to track progress and evaluate outcomes.

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