Report to the Ministry of Health

Feedback to MOH re Emerging Trends in National & International Literature

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ABACUS Counselling Training & Supervision Ltd

Literature	Findings	Comment
Pathological gamblers respond equally well to cognitive-behavioural therapy regardless of other mental health treatment status. Authors: Champine M, Petry N (2010) The American Journal on Addictions, 19:550-556 DOI:10.1111/j.1521-0391.2010.00085.x	• A retrospective analysis of 231 people affected by their pathological gambling (PG) who were allocated into three categories to compare severity of their gambling, psychosocial problems, and treatment outcomes. • High levels of comorbidity have been identified between PG and psychiatric behaviours. Kessler et al (2008) reported 96.3% of PG met the criteria for at least one other psychiatric disorder; Petry et al (2005) reported 49.6% of PG met mood disorder criteria in their lifetime, 41.3% had anxiety disorder, and 60.8% a personality disorder. Kerber et al (2008) reported 82.5% of PG met lifetime major depression, 47.5% anxiety disorders, 37.5% obsessive compulsive disorder, and 27.5% avoidant personality disorder. • PGs with a history of treatment for substance abuse were more severe in PG, substance abuse, and psychiatric problems. • Studies on the impact of severity of PG, and	• This study has interest because it can have relevance to the current roll-out of CEP (addictions and coexisting mental health problems). • With the findings that most clients will be affected by coexisting problems, these findings will have relevance to the majority of presenting clients. • Using the CEP model, the expectations will be that problem gambling (PG) practitioners will become sufficiently skilled to address mild to moderate mental health issues in an integrated approach with PG treatment. • This research supports that an integrated approach to PG and coexisting mental health problems can be effective in reducing gambling problems. • It also supports the effectiveness of CBT as a therapy for PG treatment, and when coexisting mental health issues are current, been treated in the past, or never received treatment.

	psychiatric symptoms on treatment outcomes are mixed. Those PGs with high levels of anxiety were more likely to relapse or drop out of treatment (Echeburua et al (2001). However, in Leblond et al (2003) depression and anxiety did not impact upon PG treatment outcomes. • This study examined the relationship between mental health treatment, psychosocial functioning, and PG treatment. Three categories identified by mental health treatment status (never, past, current) at the time of PG treatment (using CBT - manual or weekly therapy, or Gamblers Anonymous). Outcomes included effects of the mental health treatment status on PG outcomes. • All three categories had similar levels of PG. • Findings were supported by contact with 'collaterals'-friends, family who verified the PG statements. • Individual CBT therapy was found to be effective in reducing PG across all three PG groups. • In addition, clients with PG and greater psychopathology were found likely to benefit from PG treatment (as did Leblond et al 2003).	• Mental health treatment included 'any emotional or psychological problem' but did not include substance abuse treatment. These ranged from 'marital concerns' to depression, anxiety, and schizophrenia, but excluded those with current suicidal intentions, experiencing psychotic symptoms, or already in treatment for gambling. This may affect the generalisation of these findings, as alcohol is a substantial issue with PG (72% of PG had hazardous drinking behaviour; NZHS 2006/7) while 17% had received counselling in the previous 12 months, possibly for alcohol use (NZHS). However as all groups in this study improved, allocation to a particular group may be less important than say, exclusion for current suicidal intentions. These latter clients would receive prioritised acute help for this ideation, but would also receive PG therapy.
Gambling and problem gambling across the lifespan Authors: Welte J, Barnes G, Tidwell M, Hoffman J	• The role of dopamine release, excitement, and problem gambling (PG) was explored. Some gamblers may crave excitement, and this experienced during gambling may reinforce further gambling, more than with other gamblers.	• With the availability of machinery to measure effects (MRIs and PET scans), better understanding may be available of the biological process of PG. Previous reliance upon PG statements which may be open to flaws, may sometimes provide less insight into this one

Journal of Gambling Studies, 27, 49-61 DOI: 10.1007/s10899-010-9195-z	• Non PG (non-gambling control group; n=16) and PG 9 (n=18) were compared using a card game task where participants rated their excitement levels and baseline (no choice gambling)/ free choice gambling measures and dopamine release levels were measured using 60 minute PET/MRI brain scans of the ventral striatum region. • PG exhibited both higher dopamine release and more reported excitement during gambling than the controls, with no difference between the two groups at baseline. The excitement levels correlated positively with the dopamine release change. PG performance on the gambling task was not better than the controls. • It was hypothesised by the researchers that dopamine causes a double deficit for some PGs (those experiencing higher excitement) in that it reinforces gambling (by providing excitement) and increases risky decision making in gambling. • They further noted that chemical addiction and gambling, both resulted in increased dopamine release; some chemical addictions reduce dopamine responses (cause a blunted result); and as other biological factors may be occurring with gambling, more research is required comparing these effects.	aspect of gambling problems (cf psychological and social aspects). This research therefore identifies that the level of dopamine release increases with some PG, an important component of the reward cycle. • Reviewers (Harvard – Wager) noted that as participants excluded those with psychopathology (including substance use disorders) which comprise a large proportion of PG, the result may be less generalisable. They also noted the all-male sample, and that dopamine may have been released in other sectors of the brain not measured. Finally, they noted that dopamine not only reinforces, but also warns of potentially undesirable events, one of which may have been potential gambling losses. • Despite this criticism the research appears to be compelling. Although excluding possible participants exhibiting current psychopathology reduces the ability to apply this study to PG, many of the PG may have experienced psychopathology in the past and would have participated. Further, although dopamine may warn of potentially undesirable events, negative reinforcement (e.g. avoiding a loss) can also be arousing/exciting. Recent other research (Jessup et al 2011*) indicates that although release of dopamine may well occur in other brain sectors, the dorsal striatum (and overlapping with the ventral striatum) is involved in the learning stimulus-response during choice

		and reward prediction errors (e.g. gamblers fallacy). The same brain region involved in learning is also used when making a choice. This would suggest the brain region targeted in the Welte et al research was appropriate, and dopamine release may be an important factor in problem gambling. Some research has suggested that administering dopamine agonists may be associated with problem gambling (Gallagher et al 2007**), which suggests that further research using MRI or PET scans may assist to identify pharmacological interventions to assist PG behaviour change in the future. Such pharmacological options currently have mixed success and may be an important factor in future effective PG intervention. • *Jessup R, O'Doherty J (2011) Human dorsal striatal activity during choice discriminates reinforcement learning behaviour from gambler's fallacy. The J of Neuroscience, 31(17): 6296-6304). **Gallagher D, O'Sullivan S, Evans A, Lees A, Schrag A (2007) Pathological gamblers in Parkinson's Disease: risk factors and differences from dopamine dysregulation. An analysis of published case series. Movement Disorders, 22(12):1757-1763.
Treatments for PTSD and pathological	• PTSD is a commonly co-occurring issue with PG, with Ledgerwood & Petry (2006) identifying	• This research informs around client preferences in therapy when affected by PG, or PTSD and

gambling: what do patients want? Author: Najavits L (2011) Journal of Gambling Studies, 27: 229-241 DOI 10.1007/s10899-010-9198-9	34% of treatment-seeking PG having a high level of PTSD symptoms, with estimates of between 12.5-29% of PGs meeting the criteria for PTSD (compared with 7% (lifetime) prevalence in the general population). • Treatment preferences of those affected by PG, with or without PTSD, have not previously been explored. This was seen as important knowledge for the design of treatments, engagement of PGs in treatment, and for treatment retention, especially as previous studies have identified low levels of help-seeking by PGs • Treatment preferences were explored with 106 people with either posttraumatic stress disorder (PTSD), pathological gambling (PG), or both, by offering 16 different therapies. • The range of therapies included psychotherapies, medication, self-help and self-guided therapies. Simple descriptions of each therapy were provided. • Those affected by PTSD were more likely to prefer (rate higher) therapies, than those with PG alone, however the coexisting group did not value treatments at a higher level than either single-diagnosis groups. • Those with PG alone chose self-help as the most preferred therapy, while those with PTSD chose psychotherapies • Medication was rated low for both as a preferred therapy for PG and PTSD	PG; an important factor, especially when help-seeking by those affected by PG is low. Also, with the finding that the majority of PG are likely to be affected by co-existing mental health problems (Kessler et al 2008), the category of PG plus another disorder that commonly coexists with it, provides valuable additional knowledge. • Recently in NZ, following the Christchurch earthquakes, police and civic leaders have found increased levels of problem alcohol use, increased family violence/abuse, problem gambling*, while high risks of PTSD have been predicted to exist.** This current research identified that self-help was the preferred therapy, however Gamblers Anonymous (GA) groups are not well attended in NZ, nor are there as many available as in the past. There remains the difficulty for GA development support because of rules not allowing acceptance of funding, however, in the past, strategies to establish new groups and facilitate them with a recovering PG has been effective in NZ (Sullivan et al 1994). Re-establishing such a process may facilitate the demand identified by this study and increase (self-directed) PG interventions. • Family or couples therapy was low for PG or PG/PTSD, while CBT and contingency management was higher for PG/PTSD. Medication alone was least preferred, suggesting help-seeking via their primary health

	• Participants were enlisted from the community rather than from treatment services and therefore provided relevant information around motivation to engage in treatment, depending upon treatment offered.	provider may be low. However, medication combined with psychotherapy may be an effective intervention, suggesting that primary health may offer an opportunity to provide an intervention (combined medical/psychotherapeutic), providing the perceptual barrier that only pharmacological intervention is available through that doorway is addressed. * http://www.radionz.co.nz/news/canterbury-earthquake/71044/police-concerned-at-gambling-levels-in-christchurch **Sullivan S, Wong S. An enhanced primary health care role following psychological trauma: The Christchurch earthquakes. Journal of Primary Health Care (In press)
Prevalence of comorbid disorders in problem and pathological gambling: systematic review and meta-analysis of population surveys Authors: Lorains F, Cowlishaw S, Thomas S. (2011) Addiction, 106: 490-498 DOI: 10.1111/j.1360-	• Problem gambling (inclusive of pathological gambling; PG) has been found to commonly coexist with other mental health disorders, including alcohol and other drug disorders, depression, nicotine dependence, anxiety, and anti-social personality disorder. Many comorbidity studies research clients who have presented for treatment, and these may not be representative of the much larger non-help seeking PG population. This study therefore focussed upon a meta-analysis of general population studies. • 11 studies of 77 potential full texts (from an	• This research provided important information as to coexisting problems of PG who do not seek help, and whether they vary from the much smaller proportion that do. PG are often late help-seekers due to a range of issues (e.g. shame, hidden symptoms, hoping to win) and this may suggest that problems may have to be greater before help is sought. Accordingly, some individual studies of PG co-existing problems indicate higher prevalence than this study of community PG, e.g. mood disorders 60%, vs this study 38%; any personality disorder 87%, vs PTSD in this study 29% (Black

0443.2010.03300.x	original 7,187 citations) met preset criteria of i) use of a validated problem gambling tool, ii) random sampling of a community population, iii) provision of one or more mental health conditions, including PG, using a validated tool, and iv) in English language. • There was a wide range for prevalence of (subclinical) problem gambling (0.1%-2.7%) and of pathological gambling (0.4%-4.2%) using a range of validated problem gambling tools with study populations ranging from 2,417 to 43,093 subjects. • High levels of co-morbidity were identified. The highest mean prevalence was nicotine dependence, followed by a substance use disorder (AOD), a mood disorder, then an anxiety disorder. Similarly, high levels of psychiatric comorbidity have been found in AOD, and PG and AOD clients may have similar personality profiles, supporting the forthcoming revision of PG in DSM-5 as a 'behavioural addiction'. • The combined effect size (mean prevalence estimate; rounded) for alcohol use disorder in PG was 28%, major depression 23%, bipolar/manic episodes 10%, any AOD 57.5%, illicit drug use/dependence 17%, nicotine dependence 60%, anxiety disorder 37%, Generalised Anxiety Disorder 11%, any mood disorder 38%, and anti-social personality disorder (ASPD) 29%. Variation due to the	& Moyer 1998). However, the meta-analysis does show moderate heterogeneity across studies and some were as high, or higher in prevalence than most treatment based studies. A conclusion may be reached based upon these findings, that those who do not seek help for PG may be similarly highly affected by coexisting mental health problems, and that development of outreach strategies to provide assistance is warranted. The current CEP cross-addiction/mental health strategy is therefore supported, while further options for those who do not seek help for addiction or mental health issues and to address help-seeking barriers to these PG, are considered. • The conclusions as to treatment approaches support integration, while the focus on pre-occurring anxiety/depression is warranted within this model. • These findings suggest that some, if not many PG clients will require interventions from skilled therapists with knowledge of both other addictions and knowledge of a range of mental health symptoms, appropriate interventions, and ability to integrate the treatment to include these coexisting issues. With PG, a knowledge of personality disorders may be required to a greater extent than other treatment sectors, and how these may influence treatment approaches. These personality disorders in DSM are currently under review but appear near resolution, and may provide some insight for

	heterogeneity of the different study findings was moderate (I^2 <50%). • Conclusions were that, as with clients seeking help for PG, high levels of comorbidity existed for the majority of people affected by their PG who did not seek help. Addictive disorders (AOD including nicotine dependence, and PG) commonly co-occur. • The high level of ASPD (29%) compared with the general prevalence (0.6%-3.6%) supports the Blaszczynski & Nower Pathway model, with its antisocial impulsive subgroup with high psychopathology. • Conclusions suggest that for gamblers with comorbid disorders, tailored approaches focussing upon underlying predispositions to addictive behaviour, rather than treating the conditions separately. Also, identify whether mood/anxiety predated the PG, and in that situation consider (in contrast to the above integrated approach) focussing upon these.	practitioners who may otherwise be confused or discouraged by variable outcomes to their interventions. The person-centred CEP approach does however assist to mitigate adverse outcomes.
A systematic review of Internet-based therapy for the treatment of addictions Authors: Gainsbury S, Blaszczynski A. (2011) Clinical Psychology Review, 31: 490-498	• Nine studies on the provision of Internet-based therapy for addictions that met inclusion requirements were systematically reviewed as to their effectiveness. Seven were randomised controlled studies. There were few studies because of the recency of such programmes, and were restricted to Internet based therapies rather than brief or self-guided interventions that included online components. • High attrition rates and low utilisation are	• Although only one study of PG met the inclusion criteria, many of the issues across the studies appeared to be relevant. • Few PG seek treatment and Internet therapy may address many of the issues that act as a barrier to seeking treatment e.g. shame. Control and anonymity remains intact and available to the client, while accessibility may be enhanced (although telephone hotlines may often provide similar accessibility). This study found mixed

	commonplace findings for traditionally offered treatment modes. This would suggest that the needs of those affected by their addiction are not being met. • Internet-based treatment may better meet needs of some clients with addictions because: i) it may increase treatment uptake and retention more than existing treatments; ii) enquiries about treatment may be easier to access, be less stressful than direct enquiries, and not need to disclose a (stigmatised) disorder; iii) CBT and MI are therapies often used in both addictions and are readily adapted to Internet-based therapy in a consistent way; iv) they are cost-effective; and v) they are accessible and convenient, especially when there are geographical constraints, and time constraints due to other responsibilities. • A past study has concluded that Internet-based therapy 'on the average is as effective or nearly as effective as face to face therapy' (Barak et al 2008, p30). • The systematic review addressed commonly held concerns about efficacy and use of Internet-based therapy, and whether in the studies reviewed (addressing smoking (n=7), gambling (n=1), and opioid dependence (n=1)), outcomes of each could generalise across other addictions. • Inclusion criteria required that the programme be for a substance or behavioural addiction,	results with youth who might be considered to be more accepting and familiar with this process, but suggested the need to design such websites/programmes specifically for youth. Such tailor-made websites would not be costly or difficult, however. • The lack of studies for this new option is understandable, and the authors' call for more studies with larger participant numbers, more standardised outcome measures (rather than satisfaction surveys), and targeted subgroups, appears valid. • This study raises an important option for clients that may access the vast majority of PG that do not seek treatment. Currently, the Gambling Problem Helpline does provide email and text counselling, with two counsellors allocated to respond to enquiries and subsequent counselling via those modes. This research suggests that further investment may be worthwhile in raising awareness of this option, and websites that are tailored to young people and others.

	included 5 or more clients, the therapeutic intervention was delivered over the Internet, had some/minimal therapist content (e.g. telephone contact), had at least one assessed outcome, and variables were measured at baseline (before) and during/immediately after, as a minimum. • Therapies varied widely, but CBT was most common (n=4 programmes; included the PG study). The PG study (Carlbring & Smit 2008) was a randomised controlled study that included self-help workbooks, website use, and telephone counselling once a week. • The PG study was found to significantly reduce PG following treatment, and at 6, 18 and 36 month follow-ups. In addition in that study, anxiety and depression scores reduced, while quality of life measures appeared to increase, and treatment effects were statistically large and sustained. • All treatment modes were found to have positive effects and the conclusion drawn was that an eclectic approach was appropriate. Clients who engaged and interacted (using the various options: emails, telephone, websites) appeared to be more likely to have positive outcomes, while the MI component in the PG study appeared to have a positive effect. Women were more likely to benefit, although this may in part be due to their increased involvement in the programmes. Online	

	counsellors were equally as effective in therapeutic alliance as others, while clients' perception of counsellor flexibility appears to be higher. Because the therapies were evaluated as a whole, the effectiveness of treatment components, and therefore their ability to be generalised to other addictions, was difficult. • The conclusion reached was that Internet-based therapy for addictions may be effective in behaviour change, and was an important finding as most people affected by addictions don't seek treatment, and attrition is high for those that do. This latter finding suggests that existing treatment options are either not suitable or desirable.	
A quick and simple screening method for pathological and problem gamblers in addiction programmes and practices Authors: Volberg R, Munck I, Petry N. (2011) The American Journal on Addictions, 20(3): 220-227	• The authors note that health professionals rarely screen their clients for gambling problems. They further state that given the high rates of comorbidity with gambling problems (PG), people seeking help for substance abuse and related disorders, it is important that they should be screened for PG. They review the existing NODS-CLiP, an existing brief screen (3 questions) based upon the NODs - a much longer DSM-based screen, and provide a new NODS-based 4 question screen, the NODS-PERC, with superior sensitivity and predictive power, and generalisation. • They note several brief PG screens have been developed, but are not widely known or used. They note these include the EIGHT, a six item	NODS-CLiP: if yes to one or more, then assessment advised. • Have there ever been periods lasting 2 weeks or longer when you spent a lot of time thinking about your gambling experiences or planning out future ventures or bets? • Have you ever tried to stop, cut down, or control your gambling? • Have you ever lied to family members, friends, or others, about how much you gamble, or how much money you lost on gambling? NODS-PERC: if yes to one or more, then assessment advised. • Have there ever been periods lasting 2 weeks or longer, when you spent a lot of time thinking about your gambling experiences or planning

	SOGS, the 3-item BBGS, the 2-item sub-screen in the CHAT and the Lie-Bet. The drawbacks include the number of items, the domains assessed, the lack of clinical validation of the underlying measure, and the poor performance in clinical settings. They describe the need for a screen that is easy to use and score without extensive training, that requires minimal administration time, and can be followed by more extensive assessments or by referral to specialist treatment programmes. • In 1998, The National Opinion Research Center DSM-IV Screen for Gambling Problems (NODS) screen was found to have strong validity (for DSM-IV), good internal consistency, and was reliable. In 2009, a 3-item subset of the NODS (the NODS-CLiP: loss of control, Lying, and Preoccupation; Toce-Gerstein et al) was found to have utility in that 99% of NODS-classified pathological gamblers and 94% of NODS problem gamblers answered at least one question positively; and demonstrated good sensitivity and specificity (96.2%, 90.2%), but suggested further study in clinical settings. • This study focussed upon clinical settings, as opposed to the previous general population studies. N=375 subjects from adverts and accessing substance treatment/other medical settings. A SOGS score of 3 or more was one inclusion criteria, although many did not later meet the more stringent subclinical problem NODS (DSM-IV based screen) score. NODS	out future ventures or bets? • Have you ever gambled as a way to escape from personal problems? • Has there ever been a period when, if you lost money gambling one day, you would return another day to get even? • Has your gambling ever caused serious or repeated problems in your relationships with any of your family members or friends? • Brief screens are important tools for opportunistic interventions, that may raise awareness or identify growing or established problems. The existing screening used by NZ PG treatment practitioners is an extended Lie-Bet, that adds two questions as to whether gambling has been a problem, and whether it is a current problem. The lie question in the NODS-CLiP (and variant in the NZ screen) was dropped for the NODS-PERC, as well as the dependence question, as they didn't discriminate well between non-problem gamblers and those with problems. A 'problem' question ('has gambling ever caused serious…problems') was added for the NODS-PERC as an effective question, and this question in a simpler form is in the NZ brief screen. • This screen may have some utility for NZ, but would require validation for NZ, as both the population and range of gambling problems

	scores of zero were classified as low risk (4% did), scores of 1-2 (14%) NODS were at-risk gamblers. Those scoring 3-4 on the NODS (22%) were classified lifetime problem gamblers, and 61% scored 5 or more on the NODS (lifetime pathological gamblers). • Selection of screen items (for a new brief screen) was based upon 'gate' NODS/DSM items, questions that did not require a prior question (asking if tried to give up required before what happens e.g. withdrawal), while other questions with different elements were thought to require more than one question, and were avoided. From responses, no single item was able to operate alone, although 'chasing losses' was highly ranked. The smallest subset of items that identified the largest number of participants was analysed. Variation of 3-item combinations in identifying various subgroups indicated the possible need for a 4-item combination to be considered, and sensitivity increased, as well as discriminating better (than the 3-item screen) the low-risk gamblers. • The NOS-CLiP was sensitive (captured all pathological gamblers and 94% of problem gamblers), but it was less specific in that it also captured half of the low-risk gamblers (no DSM scored). • With the 4-item alternative screen combination, higher diagnostic efficiency was found. Chasing was a common highly sensitive item with each	vary with the USA population. The considerable difference between the NODS-CLiP and NODS-PERC indicates the difficulty in fully describing problem gambling criteria within similar populations (North American). • Another larger consideration, is that raised by the researchers that the validity of any screen relies upon its underlying measure's validity. DSM-IV is one measure, but not a gold standard – none exist for problem gambling. In fact, none exist for the medical construct of 'pathological' gambling which DSM provides the classification criteria for. Further, the assumption that subclinical 'problem' gambling can be identified by a lesser number of pathological criteria, is an unproven assumption. Many comparisons between screens note that those based upon DSM-IV (and NODS is a direct translation of DSM-IV) score lower/less likely to meet problematic cut-offs (Shaffer et al 1997), suggesting that either it may have less sensitivity than other screens, or that the additional criteria upon which other screens are based are not valid. Problem gambling appears to be a broad construct, and screens often correctly value sensitivity over specificity. Those that attempt to satisfy assessment goals as well, can often sacrifice sensitivity (there is a trade-off between sensitivity and specificity). Therefore, as a brief screen that seeks to identify subclinical and clinical problem gambling, may have acceptable

	screen, although the dependence question ('tried to cut down..') and lying question ('lied to family/others..') in the NODS-CLiP were less sensitive with pathological/problem gamblers, while more low-risk gamblers also answered these affirmatively. • Both screens were effective; the NODS-PERC better performing in a clinical setting (sensitivity 99.7%, positive predictive power 88.5%; negative predictive power 96.3%), while the NODS-CLiP was slightly less effective (sensitivity 98%, positive predictive power 87%; negative predictive power 80%). • Acknowledged weaknesses are: participants were concerned about their gambling, and few PG seek treatment because of their concern. Hence, the NODS-PERC may or may not be as effective in a general population.	psychometrics if it does identify some, but not many, false positives (which can be identified with a longer assessment instrument) rather than fail to identify emerging or existing problems, perhaps delaying further later help-seeking. • The NODS-PERC appears to offer another brief gambling screen that has sound psychometrics for DSM-IV. With each iteration of DSM, criteria adjust or change, further demonstrating the difficulty in describing even severe gambling problems, let alone subclinical gambling problems. The proposed dropping of the criminal offending criteria for DSM-V will have little effect on this screen. • Overall, this study provides further useful information around identification of problem gambling in both clinical and general populations, and provides a further tool to address the important goal of identifying problem gambling amongst clinical populations presenting for co-existing problems.