

Report to the Ministry of Health

Feedback to MOH re Emerging Trends in National & International Literature

Period covered: 1st July 2016 to 31st December 2016

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Literature	Findings	Comment
<p>Gambling and violence in a nationally representative sample of UK men (2016) Authors: A Roberts, J Coid, R King, R Murphy, J Turner, H Bowden-Jones, K Palmer Du Preez, J Landon Addiction (2016) 111, 2196-2207. doi: 10.1111/add.13522</p>	<ul style="list-style-type: none"> • A general population study of 3,025 men in the UK investigated the relationship between problem gambling (PG), mental disorders (MH), alcohol and drug (AOD) dependence, and impulsivity • The authors noted that there 'is growing evidence to show that PG is a specific risk factor for family and intimate partner violence' • The research was considered to assist in the tailoring of intervention and treatment programmes for PG service clients • Data from the Mens Health & Modern Lifestyles Survey in Great Britain was analysed and interviews randomly selected from males in the general population • Using the SOGS gambling screen, 80% of the men had participated in gambling, and of these, 86% were non-problem gamblers, 6% problem gamblers, and 8% possible pathological gamblers. • 53% of probable pathological gamblers and 46% of problem gamblers reported a physical fight in the previous 5 years (cf 28% non-PGs and 19% non-gamblers). • 28% of probable pathological gamblers and 18% of problem gamblers used a weapon (cf 7% non-PGs and 6% non-gamblers) • Intoxication increased the risk of fighting for PGs. Risk for violence for PGs was reduced when impulsivity and mental health issues were adjusted for, but remained significant • Risk for perpetration of intimate partner violence (IPV) was higher for probable pathological gamblers (9%) and problem gamblers (4%) (cf under 2% non-PGs and under 1% non-gamblers) • This population sample was more representative than past research where treatment seeking PGs or other specialist samples were used 	<ul style="list-style-type: none"> • Although this is a UK study, it supports NZ findings and includes NZ researchers in the project (AUT: Dr Landon and K Palmer) and participants • It is important as much of the previous research has been with specialised populations (e.g. help-seekers) which may constitute a very small proportion of PGs who may not also be representative of PGs with violence issues; this study population was of the general population which noted that non-problem gamblers also had elevated risk for violence • Previous research may have attributed AOD or MH issues in those affected by PG to increased risk for violence, whereas this research was able to identify that the risk remained high even when AOD was statistically adjusted for • The high correlation between AOD and PG also is a concern in that the comorbidity may further raise the risk for violence, as well as IPV and violence against children in the family. The authors hypothesised that the risk may be due to the stress and antagonism of gambling, and that violence in turn may result in increased gambling as an increasing cycle • There was a call from the researchers to

	<ul style="list-style-type: none"> • Coexisting AOD problems increased violence but violence remained elevated even when this was allowed for • The authors hypothesised that the strain and tension associated with gambling harms may contribute to stress and antagonism aimed at others and that AOD may exacerbate this. Also, perpetrating violence may result in increased gambling. • Although some researchers have suggested problem gambling may precede violence, this research indicated also a link between violence and non-PG • AOD and PG are highly comorbid, and may exacerbate the link between PG and violence, more so than impulsivity and comorbid mental health issues • The authors stated that the results 'reiterate that public health efforts and harm minimisation should include education around violence and that there is value in integration with efforts at addressing alcohol and drug abuse programmes', even though PG may be perceived as 'a less serious issue (than AOD)', and further that these findings 'and a growing body of evidence suggests that a greater integration would be beneficial' • The authors note that only a small proportion of PGs seek help for their gambling and these results suggest that 'other services (e.g. alcohol, drug, domestic violence, general practitioners) should be aware of the potential linkages with gambling' • The authors note that 'With respect to gambling specific services, screening for IPV should be enhanced' • The authors concluded that 'the findings highlight the need for PG treatment services to undertake routine screening for alcohol, violence and IPV to tailor treatment for clients who present with such a cluster of issues' and that the strong associations are 'justification for establishing a standard battery of screens for gambling, alcohol, drug and violence issues in a range of mental health and addictions settings'. 	<p>screen for violence amongst those accessing PG treatment services, as well as other services (AOD and MH) where gambling may coexist, with its enhanced risk for violence.</p> <ul style="list-style-type: none"> • The availability of the NZ CHAT screen that screens for those who are victims of abuse, as well as anger issues (as a possible surrogate screen for perpetration of violence) provides an opportunity to incorporate the findings of this research into NZ addiction and MH services through use of a validated comprehensive tool.
<p>Naltrexone: a pan-addiction treatment? (2016) Authors: E Aboujaoude, W Salame CNS Drugs, August 2016, 30(8), 719-733</p>	<ul style="list-style-type: none"> • The authors sought to review the effectiveness of the opioid antagonist naltrexone across a range of substance and behavioural addictions, including problem gambling. • A literature review was conducted only of randomised-controlled trials. Of 39 studies retrieved, 4 studied behavioral addictions (2 of these problem gambling), with the remaining 35 covering alcohol use, opioid use, nicotine and stimulant use. 	<ul style="list-style-type: none"> • Naltrexone is an approved treatment in Australia (Australian National Health and medical Council) for problem gambling to reduce cravings and minimise the pleasure received through gambling. • Most problem gamblers (PG) present with coexisting problems including other addictive

	<ul style="list-style-type: none"> • They noted the high comorbidity with addictions even though there were differences between them, and that there appeared to be a 'shared role for brain opioid pathways in the pathophysiology of addiction'. • They noted that naltrexone was originally focused upon heroin addiction, but then has been used in the treatment of other drugs because of 'similarity in clinical presentation and on data implicating the endogenous opioid system in the pathophysiology of other substance use disorders'. Since 1995, the US has approved naltrexone also in the treatment of alcohol problems, and later in nicotine and stimulant use. • They also noted that 'phenomenological, neuropsychological and brain imaging research has increasingly highlighted similarities between substance use disorders and behavioural addictions such as pathological gambling'. Similar addiction features, such as craving, tolerance, withdrawal, and loss of control, cross both drug and behavioural addictions, and that dopamine dysfunction occurs in the limbic system of both drug and behavioural addictions. In addition, increased impulsivity occurs in both these other categories of addiction, and impulsivity is associated with disruptions in the opioid system. • DSM5 has noted the similarities between drug and gambling disorder • In the problem gambling studies, the first (Kim et al 2001) noted a significant improvement, with naltrexone, of gamblers' measures on three measures (Clinical Global Impressions (CGI) and clinician-rated CGI and the Gambling Symptom Rating Scale). • In the second study (Grant et al 2008) there was improvement in three measures (PG-YBOCS score, gambling urges, and gambling behaviours, with similar effects on different dose levels of naltrexone. Significant improvements started at 6 weeks with naltrexone compared with a placebo • Most adverse naltrexone effects were mild to moderate, with no difference in these between the naltrexone and the placebo • The authors concluded that endogenous opioids 'play an important role in (<i>substance and behavioural</i>) addiction' • They further concluded that naltrexone findings, together with the 'overall lack of well established treatments for substance and behavioural addictions, and the very high morbidity associated with 	<p>behaviours (including tobacco) with limited knowledge of the impact that these may have upon gambling recovery if untreated</p> <ul style="list-style-type: none"> • The findings of this research suggest the opioids produced within the body may have a broad influence on continuing addictions and resistance to change, and this may apply to both substance and behavioural addictions. • The use of a drug such as naltrexone that has evidenced impact upon these barriers to change, which may acts across a range of behaviours that coexist with gambling problems, may be an important under-developed tool in succesful interventions for problem gambling • Naltrexone appears to have low health risk factors, has no abuse risk, and has been approved in Australia specifically for problem gambling • There is however, limited research in problem gambling intervention using naltrexone with and without psychotherapy, but with available evidence, a piloting of using naltrexone could be an important step, either in PG treatment services, or amongst AOD services where PG is identified as a coexisting issue. • As naltrexone is currently prescribed for some AOD clients, the identification of clients also affected by PG and who may normally be prescribed naltrexone for their AOD issues, may provide an opportunity to identify the drug's impact upon the gambling over time alongside the AOD use. • Naltrexone has been available since 1963 and may provide a relatively inexpensive addition to psychotherapy in the treatment of PG.
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	<p>these conditions would suggest that naltrexone is an underutilised pharmacological option in a field without many good alternatives'</p> <ul style="list-style-type: none"> • Naltrexone can in a few cases, cause liver issues, but the authors concluded that naltrexone is generally well tolerated, especially at the lower doses required for addiction treatment, and where liver function results are elevated, this can be offset by more regular liver function tests • They noted also that for some substance addiction treatments, unlike some treatments that use opioid agonists (e.g. methadone for heroin addiction), naltrexone has no abuse potential. • No treatment duration recommendations were possible because of the lack of findings on this point; also more RCT studies may be required on behavioural addictions for more conclusions to be drawn • More studies in coexisting drug and behavioural addiction may assist to further identify the benefit of naltrexone in behavioural therapies. 	
<p>Twelve-month prevalence of DSM-5 Gambling Disorder and associated gambling behaviours among those receiving methadone maintenance (2016) Authors: S Himelhoch, H Miles-McLean et al J Gambling Studies 2016, March 32(1), 1-10</p>	<ul style="list-style-type: none"> • People receiving methadone maintenance treatment were assessed for Gambling Disorder (PG) • Almost half (46.2%) met the requirements for PG, although those who had been in the programme for less time were more at risk for PG 	<ul style="list-style-type: none"> • Although this may have a limited impact of therapy provision in NZ (even despite a very high coexistence of PG and methadone use), the finding appears to be related to and may add some support to the last review (naltrexone, above). • Methadone does enhance endogenous opioids whereas the authors above suggest that enhanced opioid effects may be an underlying cross addiction factor. • The very high (almost 50%) cross addiction between methadone use and PG is similar to that of tobacco use and PG, and Aboujaoude & Salame (2016) noted, (similar to the effects of methadone), that 'nicotine increases endogenous opioid neurotransmission by binding to nicotinic acetylcholine receptors on presynaptic neuron terminals containing opioid peptides' • This finding appears therefore to support an opioid effect and similarities in the addiction process across substance and behavioural

<p>Intergenerational childhood maltreatment in persons with DSM-IV Pathological Gambling and their first-degree relatives (2016) S Shultz, M Shaw, B McCormick et al J Gambling Studies, Sept 2016, 32(3), 877-87</p>	<ul style="list-style-type: none"> • The authors interviewed 94 subjects who met a PG diagnosis, 91 controls, and 312 of their first degree relatives. Maltreatment was evaluated using the Revised Childhood Experiences Questionnaire and the functionality of the PG's and controls' family of origin was evaluated using the Family Assessment Device • Maltreatment rates were higher with PGs (61%) compared with controls (25%), with females more likely to be maltreated, with PG symptoms more likely to be more severe; to have anxiety and mood disorders, and reported greater early life disfunction than controls • Rates of maltreatment amongst first degree relatives (FDR) of PGs (41%) were higher than controls (24%), and these FDR were more likely to have anxiety disorders, substance use disorders, and to have made suicide attempts • The authors concluded that childhood maltreatment of PGs was common and may be intergenerational, as were rates in FDR 	<p>addictions.</p> <ul style="list-style-type: none"> • The high levels of maltreatment associated with PG is again reinforced by this study with findings that this was commonplace and more likely than not in the PG study participants • The research would appear to support that for many, the maltreatment preceded the PG and increased the risk for later gambling problems • That first degree relatives were also affected by abuse with resulting later risk of anxiety, mood and suicidal ideation, all supports the impact upon adults from their early life experiences • This highlights the need to identify and incorporate strategies to address these issues in both PGs and their families
<p>A randomized controlled trial of brief interventions for problem gambling in substance abuse treatment patients (2016) Authors: N Petry, C Rash, S Alessi J of Consulting & Clinical Psychology, Jun 2016, 10.1037/ccp0000127</p>	<ul style="list-style-type: none"> • This study evaluated the efficiency of brief gambling treatments in clients who attended substance abuse clinics in a US programme with coexisting gambling problems (N=217) • Clients were randomly assigned to one of <ul style="list-style-type: none"> ○ brief 10-15 min psycho-education on gambling problems ○ a 10-15 min brief advice intervention on their gambling problems, covering risk factors, and avoidance of additional problems ○ four 50 min sessions of motivational enhancement therapy plus CBT (MET + CBT) for reducing gambling • Gambling was assessed at baseline and 24 months • In the whole sample days gambled and money spent gambling decreased markedly from baseline to month 5 • After month 5, reductions in spend were less but significant, while days gambled remained constant • In the first two interventions (brief psychoeducation and brief advice) brief advice significantly reduced days gambled when compared with brief psychoeducation • In the last two interventions, there was no difference between brief advice and MET+CBT in reduced days gambled, but MET+CBT did result in more sudden reductions in gambling spend, in reduced problems during the first 5 months, in clinically significant 	<ul style="list-style-type: none"> • This research provides additional important evidence for even brief interventions in coexisting (to PG) treatment settings • The study may have further benefited from a control group to test for the impact of AOD treatment on PG, and to test if a 'transfer of addiction effect' occurred from alcohol and other drug (AOD) to PG • There appeared to be a valuable benefit in the long term effects of PG as well as improved AOD results from the five MET/ CBT PG sessions; however, in a busy AOD treatment service, an additional five sessions may be difficult to accommodate and the lesser but beneficial 10-15 min intervention with advice, risk and avoidance topics was significant and valuable • An alternative that may gain the benefits of the third longer brief intervention may be the advice plus an integration of PG into the AOD intervention in the model proposed by Te Ariari (2010) in NZ

	<p>improvements in their gambling for both short term and long term, and in self reported alcohol use/problems (but not in illicit drug use or positive substance samples)</p> <ul style="list-style-type: none"> • The authors concluded that PG tended to reduce regardless of the intervention but the more intensive 'brief' intervention was more effective in decreasing gambling than the other two single session approaches 	<ul style="list-style-type: none"> • Overall, these finding were positive and support the integration of PG interventions into other addiction (or possibly even mental health) services
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