

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
<p>Are video games a gateway to gambling? A longitudinal study based on a representative Norwegian sample (2018) Authors: Molde H, Holmoy B, Merkesdal A, Torsheim T, Mentzoni R et al 2018 J Gambling Studies 10.1007%2Fs10899-018-9781-z</p>	<ul style="list-style-type: none"> • The authors noted that both video games and gambling opportunities were growing with in many cases a convergence with digital and online gaming and gambling sites. Both the gambling and gaming industry has expanded considerably in the last decade (King et al 2015) • Problem gambling prevalence varied widely across countries (average 2.3%; Williams et al 2012) and was associated with high comorbidity of other disorders (Dowling et al 2015). • The authors noted that behavioural addictions are recognised by DSM5 (Gambling Disorder only at this stage, Internet Gaming Disorder a condition for further study) but there remained little known about the relationship between problem gambling and video gaming despite increasing evidence of converging themes and elements of gambling, gaming sites offering gambling as dual accessibility, with e-sport betting highlighted as examples of ‘intertwinedness of gaming and gambling and concerns around ‘recruitment’ for gambling. • The authors noted there were currently mixed results around comorbidity between gaming and gambling (e.g. Forrest et al (2016) found no frequency relationship; however others (e.g. 	<ul style="list-style-type: none"> • This research provides an important topic to be considered both clinically and socially as the growth of gaming in particular develops in participation and its content of gambling themes. • Currently, asking clients presenting for gambling harm about their gaming may not be systematically identified. This research may suggest an important assessment need and whether treatment should include an integrated plan for addressing both issues • The strong correlation with age and problem gambling may suggest preventative resources should be martialled to raise awareness amongst gamers of the risk for gambling, especially with the identified growth in gambling themes in games • Perhaps one of the less obvious conclusions and concerns could be the rapidity in development of gaming and that this

	<p>Walther et al (2012), McBride & Derevensky (2016) found a relations existed).</p> <ul style="list-style-type: none"> • The authors therefore sought to examine the directional relationship between problematic gambling and video gaming by assessment sampling over 2 years (2013-2015). • N=24,000 people were randomly invited to participate, aged 16-74 years, and N=10,081 participated in the first wave survey (2013) and N=5809 participated in the second wave (57.6%) and the study results were based upon those participating in both. • An addiction scale for gaming (GASA) and the CPGI for gambling identified gaming and gambling problem severity. • In the first wave a significant positive correlation was found between gaming and gambling, however not in the second wave. The authors suggested that this indicated an inconsistency in the relationship, but was plausible based upon mixed results of strength of the relationship, and the 'unstable and transitional nature of gambling and video gaming problems' (Thege et al 2015). However, they noted younger age is strongly correlated with more frequent video gaming and the sample aged 2 years over the study which may also have been a factor. • They noted with interest that problem gambling scores on the PGSI at wave 1 predicted the scores for problem gambling at wave 2, but there was no evidence for the revise relationship, suggesting that video gaming was a risk factor for gambling 2 years later. They noted causal studies for problem video/gambling based on longitudinal designs were very rare (e.g. McBride & Derevensky 2016) but there were mixed evidence for the strength of the relationship (e.g. Delfabbro et al 2009). 	<p>research, although concerning, covers a period of time three years in the past, while the authors concerns were over the changes in just two years of the project. The availability of gambling opportunities are considered to be high in Australasia when compared with other countries, and the impact of gaming could be considered to be a higher risk for coexisting gambling if this relatively high prevalence suggested factors that may coexist with gaming problems. Further research as suggested by the authors may benefit understanding and reduction of gambling harm vectors.</p> <ul style="list-style-type: none"> • Gambling themes include 'loot boxes' where money is spent with uncertain outcomes with some prizes only able to be won and are highly valued in gaming. Sweden has raised the possibility that loot boxes may be classified as gambling in 2019 as raised by its Minister for Public Administration (Chalk, P3 News Feb 2018)
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	<ul style="list-style-type: none">• The authors described their results as able to ‘suggest and support a direct and causal relationship between video gaming and gambling’. Also, because of gambling age restrictions, a significant subset of those with coexisting problems may have transitioned from gaming to (also) gambling, also suggesting that (young) age may be a moderating factor.• Other factors raised by the authors were the increasing convergence of gaming and gambling (gambling adopting video features, and more video games ‘containing intrinsic gambling themes (King et al 2014; Walther et al 2012). They also described incentives (in games, and advertising) with monetary stakes (King et al 2015; Gainsbury et al 2014), while formal and informal gambling has become a ‘large part of e-sports (Holden et al 2016).• Although males were more likely to be problem gamblers, this was not found with gaming, with some evidence that females are more likely to play games through social media (Pallesen et al 2016).• The authors concluded that the findings should not be seen as categorical evidence that ‘problem gamers develop into problem gamblers’ but that levels of problem gaming are associated with levels of problem gambling. There was a strong relationship between video gaming and gambling and age (young) and the study could not look at whether this would reduce over time (due to improved competence or brain maturation). In particular the authors recommended that because of the rapid development of gaming and gambling the impact of their interaction requires to be monitored.	
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<p>Video game loot boxes are psychologically akin to gambling (2018) Drummond A, Sauer J Nature Human Behaviour (2018) https://doi.org/10.1038/s41562-018-0360-1</p>	<ul style="list-style-type: none"> • The authors noted that adolescents who played video games were being exposed to mechanisms that were psychologically similar to gambling, and that the advent of ‘loot boxes’ operated on a mechanism that mirrored gambling. • The authors identified 22 games rated as appropriate for players aged 17 years or younger, who are below the age of legal gambling. • It was noted that 45% of the games met all five of psychological criteria that were considered to be a form of gambling. • These 5 criteria were: <ul style="list-style-type: none"> ○ The exchange of money or valuable goods ○ An unknown future event determines the exchange ○ Chance at least partly determines the outcome ○ Non-participation can avoid incurring losses ○ Winners gain at the sole expense of losers • The mechanics of a loot box were to pay real money for the highly desirable rewards (unknown) which may comprise digital presentation or performance enhancements that may not be otherwise be able to be purchased. Rewards are randomised by chance over opening several boxes in a varying number. In this way the process mirrored gambling in being a variable ratio reinforcement (reward) process in which people quickly learn the behaviour and repeat them often at a faster rate. The behaviour is learned and often difficult to extinguish. • This may or may not result in the gamer transitioning to gambling, overspending, or pursuing gaming for longer. Peer pressure, reduced value perception for money, and exchange of real life money for virtual (higher sums) could facilitate this transition. 	<ul style="list-style-type: none"> • This research follows that of Molde (2018), above, and particularly the findings of Molde that youth are at greater risk for gambling harm, that earlier gambling can result in later harm, and that youth may not have the capacity to understand and adapt to the risk raised. • Youth have greater risk (Petry 2006; Slutske et al 2012, Molde et al 2018) for gambling harm, while gaming has an increased normality both for youth and older adults. There is always a concern that gambling like processes in gaming will be perceived as relatively harmless and substantial losses possible in direct gambling will be unlikely. • However, there is a growing presence of gambling processes as the smaller sums gained through ‘freemiums’ (Gainsbury) result in substantial returns to the gaming industry when the vastly larger gaming population contribute to these opportunities to enhance their playing. When direct gaming opportunities arise through variable ratio reinforcement, learning associated with excitement, uncertainty and chance to win highly desirable assets, this instant gratification learning may be transitioned into gambling.
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	<ul style="list-style-type: none"> • The authors noted that the Belgium Gaming Commission, Australian and US regulators were investigating whether loot boxes were gambling. • The authors noted that because NZ has more game developers per capita than any other countries that their understanding of the effects of such mechanics like loot boxes was essential in order to maintain ethical and sustainable videogame development. 	<ul style="list-style-type: none"> • Many gamers will report the experience of regular pop-ups to invite moving to gambling sites. • This NZ study that may align with possible higher gambling harm in the Australasian sector may invite a risk that should be proactively addressed. • This may be evidence to support the gambling harm workforce providing treatment for excessive gaming as a harm minimisation measure to reduce the potential risk for later gambling harm. The current difficulty in accessing treatment for gaming is recognised by many gambling harm treatment services who are often contacted to provide such help but are unable to do so at this stage.
<p>Gamblers seeking online help are active help-seekers: time to support autonomy and compliance (2018) Rodda S, Dowling N, Lubman D Addictive Behaviour 2018.06.001 (EPub)</p> <p>New ways to target gambling harm identified (2018)</p>	<ul style="list-style-type: none"> • Help-seeking for gambling harm is recognised as low, with less than 10% of those experiencing harm seeking help from others, particularly health professionals specialising in gambling harm treatment • Rodda and colleagues looked at a wider range of questions to ascertain if clients had previously sought help from professionals for their gambling harm. Whereas a single question asking if they had sought such help, by providing a list of examples, the level of help seeking increased substantially. The list was provided to N=277 problem gamblers seeking help online. • Compared with asking a single question where 22% acknowledged they had sought professional help, by providing a list the lifetime measure increased to 70%. When asked whether 	<ul style="list-style-type: none"> • These were two recent studies that identified important issues that previously may have been under-identified; first that although those experiencing harm have low prevalence of help-seeking from problem gambling treatment specialists, they do seek help from a wide range of other sources. These non-specialist sources may or may not have the ability to provide appropriate help; secondly, key factors around help-seeking may not be well-understood and strategies to engage and provide effective interventions

<p>Fogarty M (Director CGR) et al Medicine & Health/Psychology & Psychiatry</p>	<p>the gamblers had attempted activities to reduce harm from their gambling a further 23% (total 93%) had attempted at least one activity to reduce their gambling. It was suggested that either the one or three question screen could be asked (Have you ever sought professional help...) or an extended 3 question screen with example or perhaps for a more accurate approach would be to offer the 14 question questionnaire if a positive result occurred.</p> <ul style="list-style-type: none"> • It would appear that those affected by gambling harm do seek to help themselves to solve the harm through own activities or help through others, including health professionals, and more details may assist in optimising help-seeking through raising awareness of their activities (rather than assume help-seeking is low). • Fogarty and colleagues at the Australian National University interviewed N=50 people around their experiences of gambling related harm. They noted that many gamblers chose not to receive help from formal services and resisted any help when offered. Many did not regard the quantity of time they spent gambling as a valid measure of gambling harm, regarding the ability to afford losses as negating any harm. • Other negative perceptions were the use of terms that are commonly used by treatment providers such as 'gamble responsibly' • The authors noted that during the study they were able to gain insights into facilitating their ability to identify gambling harm and develop strategies/resources to address the harm. • The authors found that previous public health interventions had been on an ad hoc basis and that there was a need to target all areas of the community to avoid having a limited impact. 	<p>for those at-risk for, or experiencing harm may be better targeted.</p> <ul style="list-style-type: none"> • Often-used terms that may be seen to be neutral may be regarded as stigmatising, yet may be used to drive initiative (e.g. 'gambling responsibly' or even 'responsible gambling') and may deter help-seeking. Even descriptions such as 'problem gambling' that may focus upon the behaviour rather than the gambler are viewed negatively, and further enquiry may even be appropriate to investigate whether current alternatives such as 'experiencing gambling harm' are free of such negative perception. The sensitivity to such statements and terms raises the need to carry out fundamental feedback, and these studies provide awareness raising and an important first step around assumptions that may be mistaken or assumed as unimportant. • As many gamblers seek help from non-specialists, this supports the need for raising public awareness around symptoms, risk, harm and resources available (and that they are free of charge and confidential) • Focus upon family and friends suggest strategies that may optimise referral to specialist treatment (e.g. advertising targeting families/friends in a manner that avoids stigmatising the gambler)
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	<ul style="list-style-type: none">● Targeting the general population <u>as well</u> as (focussing only on) at risk groups and those experiencing gambling harm is required to have a real impact in preventing gambling harm as well as those experiencing it currently.● The authors identified partners, family and friends were by far the most likely and preferred people gamblers sought to talk to when gambling harm was occurring.● They noted that the key research findings were:<ul style="list-style-type: none">○ That messages such as ‘problem gambling’ and ‘gamble responsibly’ were stigmatising and counter-productive○ Gambling harm was often also accompanied by poor physical and mental health, and alcohol/other drug problems○ Help-seeking is unlikely until their gambling problem becomes extreme, has substantially impacted others, and financial problems have escalated○ That most had an underlying belief that they should address and solve their gambling problems themselves (and not specialist services)○ Many other strategies (than specialist services) were employed such as giving financial control to others, such as a friend or family member, placing barriers to get money, and setting spending limits● The authors also identified barriers to gamblers awareness that their gambling was harmful. These barriers included:<ul style="list-style-type: none">○ Gamblers varying their behaviours over time e.g. using more than one mode of gambling○ Focussing upon their wins, rather than their losses, behaviours (e.g. crossing boundaries), or the impact of	<ul style="list-style-type: none">● The portraying of positive outcomes for gamblers who experience harm and who access specialist services may encourage further help-seeking behaviour, especially for those who have unsuccessfully attempted cutting back or stopping their gambling and lost hope.
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	<p>their gambling (e.g. failing to meet expected responsibilities)</p> <ul style="list-style-type: none"> ○ Self-talk that excuses, minimises or justifies, such as justifying losses as affordable <ul style="list-style-type: none"> ● The authors concluded that based on their findings that they supported interventions that: <ul style="list-style-type: none"> ○ Focussed upon families of problem gamblers by informing partners and close family members about gambling harm ○ That supported self-regulation strategies for at-risk groups (for gambling harm) especially if found to be successful ○ Where gambling harm was already occurring, to assist to change attitudes to treatment and/or the belief in behaviour change, that initiatives that portray positive outcomes to these be supported ● They further identified that most participants were positive about their doctors enquiring about their gambling (69% were positive), or counsellors enquiring (57% were positive); however the authors concluded that interventions that targeted ‘spending more than you can afford’ had limited potential 	
<p>Gambling and impulsivity traits: a recipe for criminal behaviour (2018) Authors: Mestre-Bach, Steward T, Granero R et al Frontiers in Psychiatry (2018), 9:6</p>	<ul style="list-style-type: none"> ● The authors noted that although criminal activity was commonly associated with gambling, that few empirical sociodemographic and psychological variables were identified in this (offender) population. ● The authors recruited n=382 treatment seeking problem gamblers, identifying their criminal behaviour and compared this with n=103 subjects with a history of illegal behaviour, and n=279 subjects with no history of illegal behaviour. 	<ul style="list-style-type: none"> ● High levels of prisoners in NZ have been identified as affected by gambling problems (Abbott et al 2005) while until DSM5 offending to support gambling was accepted as a criterion for pathological gambling. ● The reduced ability of those affected by GD and who offend, to resist impulses as identified in this study raises questions

<p>doi:10.3389/fpsy.2018.00006</p>	<ul style="list-style-type: none"> • The authors specifically explored personality traits, impulsivity, and other gambling-related severity factors • The authors noted that the criterion of committing criminal acts to support gambling was discarded for DSM5 for want of accuracy (e.g. legislation varies between countries) but noted that the criterion may still be a valid measure for gambling disorder severity rather than a separate criterion. They noted also that there has been support for this criterion showed a high degree of ability to discriminate between social and problem gamblers (Temcheff et al 2016). They noted that although self-reported criminal offending from previous research varied between 14%-30%, and that some may gamble within a criminal lifestyle related to antisocial personality, most had not previously offended prior to the gambling becoming a problem. For example, gambling may be driven by attempts to reduce financial hardship, through desperation. Other reasons may be coexisting alcohol and/or drug use (AOD) although no causal connection has been identified. • Some suggestions have been made that AOD may reduce inhibitions to participate in illegal gambling related acts, and may show remorse afterwards. They noted that those offenders with Gambling Disorder (GD) are not usually violent. Self-control deficits were a major factor in many offenders illegal behaviour, as is immediate gratification, and sensation-seeking. They noted that impulsivity is an early risk factor for both GD and delinquency. They defined impulsivity as having sub-factors of lack of premeditation, lack of perseverance, positive and negative urgency, and sensation seeking. They rated emotionally charged impulsive behaviours responding to moods (positive or negative) as critical in the difference between social and 	<p>around their ability to avoid risk of criminal offending when GD is present. The Spanish Courts have noted this and address it in their sentencing, if not in NZ. However, this raises the importance of addressing impulsive behaviours, as well as increasing support for self-directedness and tolerance of emotions.</p> <ul style="list-style-type: none"> • Currently, the AUT/Flinders/Calgary universities study underway in NZ addresses emotional control through a hierarchical exposure-response prevention paradigm, which may generalise to other behaviours outside of gambling that raise a risk for offending. • The high prevalence (and severity) levels of GD found in NZ prisons suggest that focussing upon offenders (screening, interventions) may be an important need to be addressed, especially as GD is identified as a 'persistent and recurrent' disorder that may otherwise result in ongoing offending, and social costs for family and state.
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	<p>dysfunctional gamblers. This transition to GD may occur more rapidly during adolescence, associated with increased acceptance of irrational beliefs and persistent gambling when problematic. The authors noted that their Spanish Courts tended to reduce sentences where there was a clear connection between the crime and gambling addiction due to reduced volition.</p> <ul style="list-style-type: none">• The authors hypothesised that GD offenders would have higher debt, greater severity of GD, greater impulsivity, and greater psychopathology.• They found that those who committed gambling related crimes had greater debts, more severe GD, and involved greater maximum bets. Early age onset of GD was found with offenders. No relationship was found between the AOD and GD and offenders and non-offenders. There was a finding of lower self-directedness (i.e. an external locus of control, lower autonomy).• The authors concluded that there were high levels of trait impulsivity, especially lack of premeditation, a feeling of urgency in the predictors of criminal offending gamblers affected by GD.	
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