

# University of Sydney Policy Reform Project

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**Research Paper for NSW Council of Social Service: Literature review on homelessness and problem gambling in NSW**

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## **Executive Summary**

This literature review seeks to understand the relationship between problem gambling using electronic gaming machines (EGMs) and homelessness, in New South Wales (NSW).

The paper begins by providing some background information, defining key concepts and explaining its methodology (section 1). There is little research into the links between online problem gambling and homelessness, so this paper focuses on the relationship between problem gambling using EGMs and homelessness. The paper focuses on reviewing authoritative literature published after 2001.

Next, the paper examines how structural factors relating to EGMs may lead to them being used in a way that constitutes problem gambling (section 2). These include the availability of EGMs in the area, the environments of venues where EGMs are used, and the design of EGMs themselves. Further research is needed to explore the relationship between these structural factors and homelessness.

This paper then examines individual risk factors involved in the relationship between problem gambling using EGMs and homeless (section 3). These include socio-economic disadvantage, certain personality traits, substance abuse, and mental health problems. The effects of gender, domestic violence, age and Aboriginality on problem gambling and homelessness, is also examined.

The paper concludes with a summary of findings and some tentative recommendations for future research (section 4). Research suggests a correlation between problem gambling using EGMs and homelessness. The literature reveals a complex set of risk factors that make it more likely for a person to engage in problem gambling using EGMs, and to be homeless. Further research, including quantitative research, is needed to better understand the relationship between problem gambling using EGMs and homelessness.

# 1. Introduction

## 1.1 Background

EGMs disproportionately contribute to high rates of problem gambling and gambling-related harm when compared to other types of gambling (Armstrong & Carroll 2017, p. 33). Additionally, NSW has the highest number of EGMs in Australia (QGSO 2018) across clubs, hotels and casinos, accruing a profit of approximately \$18 million a day from users during 2019 (ILGA 2020).

*Table 1: EGM prevalence in Australia at 30 June 2018 (adapted from QGSO 2018)*

Jurisdiction	NSW	QLD	VIC	SA	ACT	TAS	WA	NT
<b>No. of EGMs in operation</b>	93,618	46,224	29,012	12,974	4,462	3,239	2,419	2,374

Homelessness is a well-documented societal challenge in Australia, but the pathways to becoming homeless are difficult to distinguish due to the intersection of numerous comorbidities. The role that EGM problem gambling plays in an individual's journey into homelessness and their ongoing homelessness is difficult to disentangle. However, the literature suggests that a mix of financial hardship, structural and socio-economic elements, domestic violence, mental health issues, and substance and alcohol abuse can interplay with EMG use to exacerbate the risk of insecure housing.

There is little research examining the relationship between online problem gambling and homelessness. As a result, this review will primarily focus on the relationship between the problem gambling using EGMs, and homelessness. However, some research shows that online gamblers are likely to also be EGM users (NSWLC 2014, p. 76). Therefore, a relationship between problem gambling using EGMs and homelessness may suggest a relationship between online problem gambling and homelessness; though this needs further investigation.

## 1.2 Definitions

### **(a) Homelessness**

This review adopts the Australian Bureau of Statistics (ABS 2012; 2018) definition of homelessness:

*When a person does not have suitable accommodation alternatives they are considered homeless if their current living arrangement:*

- *is in a dwelling that is inadequate;*
- *has no tenure, or if their initial tenure is short and not extendable; or*
- *does not allow them to have control of, and access to space for social relations.*

*This definition has been constructed from a conceptual framework centred around adequacy of the dwelling, security of tenure in the dwelling and control of, and access to space for social relations.*

This definition is cross-jurisdictional and accepted by key government agencies and not-for-profit stakeholders (NSW PRS 2018, pp. 2-3; FACS 2018, p. 5; AIHW 2019; Homelessness NSW 2020; Wood et al. 2012, p. 19; HA 2016, p. 1).

### **(b) Electronic Gaming Machines**

According to section 4 of the *Gaming Machines Act 2001* (NSW), an electronic gaming machine is a device, including any subsidiary equipment, that is designed for:

- *playing of a game of chance or a game that is partly a game of chance and partly a game requiring skill, and*
- *paying out money or tokens or for registering a right to an amount of money or money's worth to be paid.*

This paper considers gaming machines that are electronic. Examples of these are poker machines, slot machines and pachinko machines.

### **(c) Problem Gambling**

Gambling Research Australia (GRA) was established by the Ministerial Council of Gambling (MCG) and initially tasked with defining problem gambling in an effort to standardise research across national jurisdictions (Walker & Svetieva 2010, p. 40). In 2005, they recommended the following definition:

*Problem gambling is characterised by difficulties in limiting money and/or time spent on gambling which leads to adverse consequences for the gambler, others, or for the community (Neal, Delfabbro & O'Neil 2005, p. 125).*

This review adopts this national definition as its scope adequately encapsulates all types of harm to both the gambler and their network.

### **1.3 Methodology**

This review contains reports, research, statistical analysis, discussion papers and articles that have been published or released after 2001. In that year, the *Gaming Machines Act 2001* (NSW) was passed. The review encompasses material from within Australia and from culturally, socially and politically similar jurisdictions internationally. This review references government and government-commissioned literature, scholarly peer-reviewed literature and literature from non-government organisations (NGO) working within the homelessness or problem gambling sectors.

## **2. Structural Factors and Problem Gambling**

This section examines the links between increased risk of problem gambling and three main structural factors relating to EGMs. These are: the concentration of EGMs in a geographic area, the environments of EGM venues, and the design of EGMs themselves. This forms the basis of further research that is needed into the connection between these structural factors and homelessness.

### **2.1 EGM Geographic Concentration**

EGM density and revenue are concentrated in areas of lower socio-economic status (Productivity Commission 2010, p. 14.4; Rintoul et al. 2013, p. 329; NSWLC 2014, pp. 32-33). NSW statistics support these findings; ILGA reports show 3% of Local Government Areas (LGA) accounted for 25% of all EGM profits (excluding the Sydney LGA from Hotels EGM profit data) (ILGA 2018a; 2019b). These LGAs are ranked relatively poorly under the ABS Socio-Economic Indexes for Areas (SEIFA) data (ABS 2016). For example, Fairfield NSW represents the highest revenue of club-based EGMs and ranks particularly low in SEIFA for NSW (ABS 2016).

The literature suggests this may be a supply-led phenomenon, with EGM providers opting to transfer machines into areas with already high density (Delfabbro 2010, p. 212; Marshall 2005, p. 80; NSWLC 2014, pp. 32-33). Access and vicinity to EGM venues is shown to cause higher gambling activity and higher incidence of problem gambling. EGM users favour venues co-located with other services or those on daily travel routes (Barratt et al. 2014, p. 1; Bestman et al. 2018, p. 1; Delfabbro 2010, p. 212; Hing & Haw 2010, pp. xxi-xxvi;

Marshall 2005, p. 80; NSWLC 2014, pp. 33-34; VRGF 2015, p. iv; Young, Markham, & Doran 2012).

Legislative attempts to address EGM geographic concentration have resulted in a cap of 99,000 machines state-wide, a forfeiture scheme, and requirement of Local Impact Assessments (LIA) prior to issuing a new EGM entitlement (NSWLC 2014, ch. 4). Criticism of this legislation argues that the cap remains too high (NSWLC 2014, p. 126) and the LIA insufficient (NSWLC 2014, p. 32).

## **2.2 EGM Venue Environment**

The environment within venues that provide gambling facilities can encourage problem gambling behaviours amongst EGM users. Proximity of automatic teller machines (ATMs), inadequate venue-management responses to problem gambling, poor adherence to self-exclusion rules, lighting, sounds and promotional activities all encourage problem gambling (Bestman et al. 2016, p. 158; Bestman et al. 2018, p. 1, Delfabbro 2010; Delfabbro, Borgas & King 2012, p. 167; Hing & Haw 2010; NSWLC 2014, pp. 44-55; Rockloff et al. 2017, p. 4). State regulations for in-venue responsible gambling measures include a non-mandatory code of practice (Delfabbro et al 2007, p. 48; Hing 2004, p. 45). Venues often contravene or have difficulty enforcing these codes. Community sentiment reflects a demand for safer gambling environments and a dissatisfaction with current venue settings (Hing 2004, p. 44).

Problem gamblers prefer venues with privacy, minimal staff interaction, good facilities and an atmosphere of safety and comfort (Bestman et al. 2018, p. 1; Hing & Haw 2010, pp. xxi-xviii; Holdsworth, Tiyce & Hing 2012, pp. 47-48; Rockloff et al. 2017). Low minimum bet, solo-betting style (NSWLC 2014, p. 67) and social media advertising (Gainsbury et al. 2016, p. 125) may encourage problem gambling behaviour. For those who are homeless, social connection and inclusion are important factors in venue selection (Holdsworth, Tiyce & Hing 2012, pp. 47-48).

## **2.3 EGM Design**

The design of EGMs contributes to problem gambling and financial harm (NSWLC 2014, pp. 36-44). EGMs are designed according to principles of both classical and operant conditioning to sustain player engagement and are, therefore, often considered addictive by design (APH 2011, p. 32-35; Yücel et al. 2018, p. 20).

EGMs are designed to be interactive and so users' motivations for gambling often determine their style of play (APH 2011, p. 35; AIPC 2006 in Delfabbro 2010). Socialising, feelings of

excitement, enjoyment and relief are commonly cited motivations (APH 2011, p. 28; Delfabbro 2010, p. 117), as well as the possibility of substantial financial gain (APH 2011, p. 114).

In Australia, EGMs are generally high intensity, high risk machines (APH 2011, p. 36) with features allowing a 'maxi-min' betting strategy (Williamson and Walker 2000 in Delfabbro 2010, p. 116; AIPC 2006 in Delfabbro 2010, p. 114). These machines incentivise betting on the maximum possible lines at the lowest betting cost (hence, 'maxi-min') to achieve free spins, credits, multipliers, and larger payouts (Delfabbro 2010 p. 116-118; Walker 2004 in Delfabbro 2010; Williamson and Walker 2000 in Delfabbro 2010; Delfabbro 2010, p. 100, 117; Schottler Consulting 2010, p. 58). Players associate feelings of excitement with this unpredictability (Delfabbro 2010), which acts as behavioural reinforcement and is used to entice repeated play (Blaszczynski cited in NSWLC 2014; APH 2011, p. 33).

Intermittent rewards are a highly problematic design feature that fuels continued play and distorts perceptions of financial loss – also known as losses disguised as wins (LDW) (APH 2011, p. 47; NSWLC 2014; p. 38; Delfabbro 2010, p. 128, p. 109-191; Schottler Consulting 2010, p. 66; Barton et al. 2017; Belisle et al. 2015). A near miss, such as close alignment of winning symbols (Sharpe, Blaszczynski and Walker 2000 in Delfabbro 2010, p. 123) accompanied by celebratory sounds and visual effects, gives players the illusion of control, softens feelings of loss and can speed up the rate of play (Sharpe, Blaszczynski and Walker 2000 in Delfabbro 2010, p. 123; Yücel et al. 2018, p. 20; Hing 2005, p. 66; Barton et al. 2017; Belisle and Dixon 2015; Belisle and Dixon 2016).

In addition, the potential for financial harm increases with features that:

- speed up the rate of play, by increasing the speed of the reel and the response time of buttons (Delfabbro 2010, p.126-127; Schottler Consulting 2010, p. 78),
- enable higher maximum bet amounts (Hing 2005, p. 65; NSWLC 2014; p. 41; Blaszczynski, Sharpe and Walker 2001 in Delfabbro 2010, p. 127) through 'max-bet' buttons (Schottler Consulting 2010, p. 58; Delfabbro 2010, p. 94,) and note acceptors (Hing 2005 p. 65; Brodie et al. 2003), and
- cause confusion through appearance and sounds (APH 2011, p.41, p. 42; NSWLC 2014; p. 38; Delfabbro 2010, p. 191; Schottler Consulting 2010, p. 59, p. 90; Hing 2005, p. 66; Yücel et al. 2018, p. 20) and unclear screen-based layouts (Delfabbro 2010, p. 190; Hing 2005, p. 65).

### **3. Individual Risk Factors and Problem Gambling**

The literature suggests a bi-directional relationship between problem gambling and homelessness: problem gambling may lead to homelessness, and homelessness can be the impetus for gambling (which may later develop into problem gambling). The individual risk factors associated with each direction will be examined in turn. The relationship between problem gambling and homelessness is complex and depends on a range of individual circumstances.

#### **3.1 Problem Gambling as a Pathway to Homelessness**

Various qualitative case studies provide evidence of a positive correlation between problem gambling and homelessness. These studies highlight the existence of numerous financial and social pressures that are exacerbated by gambling and that can contribute to homelessness. Becoming homeless is rarely due to a single risk factor, but is more often the result of multiple intersecting considerations (Holdsworth & Tiyce 2012a, p. 5; Rogers, Button and Hume 2005).

Long-term housing instability and financial difficulties are a key risk factor. Literature suggests that disadvantaged communities are more vulnerable to EGM-related harm than more resilient, socioeconomically advantaged communities (Rintoul et al. 2013) and that wealth is a protective factor against gambling harms (Sharman 2019). Furthermore, people with lower incomes, or who have experienced structural unemployment, suffer more significant gambling losses than those with higher incomes (Holdsworth & Tiyce 2012a, p. 5; Holdsworth & Tiyce 2012b; Thomas and Jackson 2008; Livingstone & Adams 2010 cited in Holdsworth & Tiyce 2012b). These losses, especially for those already experiencing financial hardship, can reduce an individual's capacity to maintain secure housing (Lippman et al. 2004; Holdsworth & Tiyce 2012b, p. 480). In a study performed by Antonetti and Horn (2001 cited in Holdsworth, Tiyce & Hing 2012, p. 48), one third of participants had experienced some form of housing crisis, such as eviction, as a direct result of their gambling. A significant proportion of participants eventually lost their home due to resulting financial stresses and debt burdens.

Additionally, there are psychological risk factors that may predispose some individuals to problematic gambling behaviours. Personality traits, including impulsivity (VRGF 2015, p.1), a proneness to risk-taking, and self-destructive behaviours (Delfabbro 2010, p. 140) may lead to a greater risk of problem gambling and associated financial harms, including insecure housing. Moreover, Machart et al. (2020) has discovered that a significant proportion of

problem gamblers have a diagnosis of psychotic illness – mainly schizophrenia, but also bipolar disorder – and that gamblers frequently report engaging in gambling as a way to alleviate mood symptoms related to mental illness.

Substance abuse and the experience of trauma are commonly cited risk factors. This is thought to be due to the sensations of relief offered by EGMs, the promise of financial gain and the social connectedness within venue environments that may help ease the emotional burdens of trauma and addiction (Holdsworth, Tiyce & Hing 2012, p. 42, p. 46; Sharman 2019, p. 61). Substance abuse and experiences of trauma are also thought to expose individuals to greater financial hardship, which in turn can affect the security of housing (Holdsworth, Tiyce and Hing 2012, p. 42).

Finally, an under-researched factor linking EGM use to insecure housing is the way that problematic gambling behaviours can erode social support networks. In a survey conducted by Holdsworth, Tiyce and Hing (2012, p. 44), the secrecy often surrounding problem gambling was identified to be a leading cause of relationship breakdowns that compromised an individual's ability to rely on their social and familial networks for support when facing financial and housing concerns.

In sum, a complex set of individual risk factors affect the relationship between homelessness and problem gambling. These include long term housing instability, socio-economic disadvantage and financial hardship, some personality traits, the diagnosis of psychotic illnesses, substance abuse and the experience of trauma and the weathering of social support networks.

### **3.2 Problem Gambling Arising from Homelessness**

EGM use among homeless individuals in NSW and Australia, more broadly, is under-researched and under-reported due to an unwillingness to disclose or admit problems with gambling or to seek help from service providers that typically record this data (Holdsworth and Tiyce 2012b, p. 474, p. 477; Lippmann, Mirabelli & Rota-Bartelink 2004, p. 47; Rogers, Button and Hume 2005, p. 6; Holdsworth and Tiyce 2012a, p. 15). While most studies argue that problem gambling may lead to homelessness, it is likely that the link is bi-directional and that homelessness may lead to problem gambling (Sharman 2019). Two main arguments support this.

Firstly, those who have become homeless due to problem gambling are likely to sustain problematic behaviours while homeless (Machart et al. 2020; Lipmann et al. 2004, p. 41; Sharman et al. 2018, p. 8; Matheson et al. 2014, p. 537). According to the Machart et al.

study (2020, p. 92), 12% of homeless people identified problem gambling behaviours as the primary cause of their housing insecurity. As problem gambling behaviours persist despite homelessness, it is likely that a substantial portion of Australia's homeless continue to use EGMs. This inference mirrors qualitative studies from Canada (Matheson et al. 2014, p. 537) and the UK (Sharman et al. 2016, cited in Sharman & D'Ardenne 2018, p. 14), in which problem gambling was significantly higher among the homeless in comparison to the general population.

Secondly, individuals may develop gambling problems after becoming homeless as financial hardship, poverty and unemployment can be the impetus for problem gambling (Crane & Joly 2014; Matheson et al. 2014; Sharman & D'Ardenne 2018; Sharman 2019). These studies outline how gambling and use of EGMs may ease the challenges of homelessness as:

- gambling can provide hope of financial gain and alleviation of financial stress (Sharman & D'Ardenne 2018, p. 14; Holdsworth, Tiyce and Hing 2012, p. 39; Holdsworth and Tiyce 2012a, p. 20; Sharman 2019, p. 57; Antonetti & Horn 2001),
- gambling can soothe feelings of failure and low self-worth associated with homelessness, poverty and unemployment (Holdsworth and Tiyce 2012b, p. 477; Antonetti & Horn 2001; Rogers, Button & Hume 2005),
- gambling venues can offer social interaction and participation which can address feelings of alienation and disconnection that are common among homeless individuals (Tiyce and Holdsworth 2011, p. 4; Rogers, Button & Hume 2005, p. 8; PC 2010; Sharman 2019, p. 61), and
- gambling and EGMs can also be a source of enjoyment, relief and leisure, an opportunity to relax (Holdsworth and Tiyce 2012a, p. 20), a way to alleviate boredom (Sharman & D'Ardenne 2018, p. 15-16; Crane & Joly 2014, p. 260) and a coping mechanism (Sharman & D'Ardenne 2018, p. 8).

### **3.3 Comorbidities**

There are certain demographics who are more vulnerable to problem gambling and homelessness (Holdsworth & Tiyce 2012a). As the experiences with problem gambling, EGM use and financial hardships are highly individualised, it is important to delineate the risks associated with these demographics to avoid essentialisms and highlight at-risk groups.

A number of studies indicate that gender can be a risk factor for gambling related harm or homelessness, both directly and indirectly. Men are more likely to engage in problem gambling than women (ARGC 2015), gamble more regularly (Hare 2009) and are 'riskier gamblers' (Wardle et al. 2010). While men are over-represented in most forms of gambling in Australia, EGM gambling presents a more balanced engagement with women accounting for 45.7% of users (ARGC 2015, n.p.). There is also a suggestion that data on women may be lacking. Sharman et al. (2015, p. 530) has identified that research on already-homeless subjects with problem gambling issues surveyed primarily male participants.

There is also a strong correlation between domestic violence, homelessness and EGM use. Domestic violence is the leading cause of homelessness for women and children in Australia (AIHW 2018, p. 15). A Victorian study by Markham et al. (2015, p. 113) showed that areas with a high concentration of EGMs also had a high incidence of domestic violence. Problem gambling may present as both the cause and the result of domestic violence (Markham et al. 2015, p. 112).

There is competing evidence as to which age groups are more susceptible to gambling harm and homelessness. Some research found that rates of problem gambling are higher in adolescents than adults (VRGF 2015), while others have not found a link between younger age groups and problem gambling (Hare 2009; Queensland Government 2012). EGM use does appear to be evident in older age groups, with 23% of elderly, newly-homeless individuals reporting problem gambling to have contributed to their homelessness (Crane et al. 2005). Australian survey data from 2015 shows that over 50% of EGM users are over age 50 and that this figure had been increasing (ARGC 2015).

The literature has also identified Aboriginality as a risk factor for problem gambling (Young et al. 2006; Office for Problem Gambling 2012; Hare 2009). Aboriginal Australians are over-represented in problem gambling populations (Sproston, Hing & Palankay 2012) and also as EGM users (ARGC 2015). They may be at risk of related harms stemming from a reluctance to seek help due to a lack of culturally-appropriate services, feelings of shame (Delfabbro 2010), and fear of rejection from family (Holdsworth et al. 2013). Although, as there is limited research in this area, it is difficult to determine meaningful conclusions as to the cause of problem gambling in Indigenous Australians (Delfabbro 2010).

## 4. Conclusion

Structural and individual factors may encourage the use of EGMs and have contributed to a bidirectional relationship between problem gambling and homelessness. As the research is limited and predominantly qualitative, it is difficult to identify a conclusive causal relationship where EGM use results in homelessness. Despite this, the research has illuminated a compelling range of risk factors involved in a correlation between problem gambling and homelessness.

Based on the limitations of current research, and the findings of this paper, we recommend:

- additional research to understand the impact of the concentration of EGMs on homelessness, particularly in low SEIFA local government areas,
- a review of the efficacy of the current regulatory environment to ensure NSW legislators and the gaming industry are implementing responsible social policy that mitigates EGM related harm,
- an investigation into why Australia continues to permit high intensity, high risk machines despite the wealth of research which suggest they lead to addiction and significant financial losses,
- additional research into the links between EGM use and homelessness in order to overcome the lack of quantitative data presently available, and
- further research on regulated and unregulated online gambling platforms and how they contribute to problem gambling and homelessness in NSW.

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