

Life Course and Legacy Gambling Harms in New Zealand

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August 2021



GAMBLING & ADDICTIONS RESEARCH CENTRE
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Acknowledgements

The authors wish to express their gratitude to the participants of this study, including the gambling treatment and other professionals who gave their time and experience, and people who gamble and people affected by others' gambling who were prepared to share their experiences. Their input was invaluable to this study. Finally, we thank the New Zealand Ministry of Health who provided the funding for this study.

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Key Findings

The research explored whether - and to what extent - people would nominate that they are still harmed by gambling after most of their gambling problems had resolved. An online panel study recruited people, 18+ years old, N = 1240, who said 'yes' to the question: 'Was there a time when... gambling has caused issues in your life, no matter how minor?'

- Of the gamblers in the sample (n=735), 417 (56.7%) indicated that they still had some legacy gambling harms. Similarly, of the 505 Concerned Significant Others (CSOs) who had someone in their lives who had caused them gambling-related issues, 291 (57.6%) also reported legacy harms from this past issue.
- Most harms disappear within the first 5 years after recovery, with a lesser number of long-lived harms. The half-life of legacy harms, defined as the length of time when it is 50% likely that the harm will remain, averages 4.0 years.
- Acute financial problems and the harm of "neglected my whānau or family responsibilities" are more short-lived than other harms. Harms related to violence and injury also appear to be relatively more short-lived.
- Legacy harms were estimated to represent either 19.4% or 23.7% of the total impact of harm on the gambler, depending on the calculation method, with remaining majority of harm experienced during the period of problem gambling.
- For people experiencing a gambling problem, the lifetime impact of gambling harm, inclusive of legacy harms, was calculated as 1.81 years or one-year and 10 months of life loss due to disability. Thus, lifetime gambling problems subtract substantially from people's normal ability to enjoy the benefits of life.

Subsequent interviews involved participants who were clinicians (8), team-leaders (6), public health promoters (3) and caseworkers (3); all with direct knowledge and experience with people affected by gambling harm.

- Gambling was identified as causing harm to the environment and the communities in which people live. Degradation of the environment caused by gambling, broadly construed, included the normalisation of a cycle of poverty in already vulnerable communities.
- Service provision, including treatment and health promotion, may benefit from being better resourced to look beyond immediate treatment of acute gambling problems to also address these residual harms with the consequence of enhancing individual and community capacities for recovery.
- Formulating a comprehensive conceptual model of 'recovery capital' applicable to life-course and legacy gambling harms could support harm prevention and reduction practice by promoting a holistic view of recovery, which underscores the importance of enhancing social, environmental and community resources in addressing harms.



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Executive Summary

Background on Gambling Harm in New Zealand

Gambling harm results from excessive time and/or money devoted to gambling that impacts on important aspects of life. These harms may accrue directly to the gambler but also potentially to others, such as family members, who are closely connected to the gambler. These closely connected others are often termed Concerned Significant Others (CSOs). Browne et al. (2017) documented a diverse collection of harmful consequences that are endorsed by gamblers and CSOs in New Zealand.

Importantly, this work identified that a larger quantum of harm in the community is suffered by people with relatively few gambling problems. That is, numerous New Zealanders gamble to excess on occasion and cause some harm to themselves and others, despite not being classified as problem gamblers. Since this occasional harm is so common, and problem gambling is rare, a large amount of harm is distributed widely in the population. Moreover, this harm is inequitably concentrated in Māori, Pacific and Asian communities.

What are Legacy, Life course and Intergenerational Harms?

Important and hitherto unexplored aspects of gambling harm in New Zealand, however, are so-called legacy, life course and intergenerational harms, where some harm from gambling may continue after excessive gambling involvement has ceased. Legacy harms are consequences that linger after the resolution of a person's problems with gambling. Legacy harms do not last forever; they disappear over time. In contrast, life course harms are consequences that never entirely dissipate with time, and therefore significantly and permanently affect a person's life outcomes, health and/or wellbeing. Lastly, Intergenerational harms are negative consequences of gambling that are passed on to children and the community, affecting their health, study and employment outcomes in the longer term.

What are the challenges in measuring legacy, life course and intergenerational harm?

Gambling harm is typically measured by negative consequences experienced in the last 12 months. This time frame helps to capture a potential diversity of experiences in gambling harm that are nevertheless contemporary, and therefore presumably less likely to be a result of issues with gambling in the deep past. It is possible, however, that some harms experienced within the past 12 months are a legacy of past gambling problems. Moreover, when research on harm excludes people who do not gamble, as it often does, some people with legacy gambling harms may be excluded from study. The current programme of research was designed to remedy these deficits and explore, both quantitatively and qualitatively, the scope and impact of legacy gambling harms. Moreover, life course and intergenerational harms were explored to understand the broader consequences of gambling harm that extend past the immediate issues posed by current gambling involvement.

Findings from the Literature Review

The extant literature contains descriptive and qualitative research on long term harms from gambling, although relatively little quantitative research exists on legacy harm. Langham et al. (2016) outlined a comprehensive taxonomy of gambling harm that explicitly recognised the existence of legacy, life course and intergenerational harms. As part of a conceptual framework, Langham et al. (2016) identified financial, relationship, emotional/psychological, health, cultural, work/study and criminal harms as potential dimensions that can present as legacy, life course or intergenerational consequences. That is, harm from any dimension can potentially be expressed as consequences that occur to gamblers and people close to them after gambling problems have ceased. Life course and intergenerational harm can be a category of harm in each domain (e.g., the legacy of financial harm experienced from gambling debt, including across generations), or as a separate, unique domain of harm based on the accumulation of a range of other harms (e.g., ongoing financial hardship due to the inability to maintain employment). These legacy harms can then contribute to further longer-term harm for the person, their significant others and the community as a whole. It is therefore necessary to attempt to measure the nature and quantity of these harms, to inform policy and interventions.

Online Survey Study

A principal purpose of the research was to explore whether - and to what extent - people would indicate that they are still harmed by gambling after most of their or a CSO's gambling problems had been resolved. We assumed that if legacy gambling harms were present, those continuing harms would be less commonly reported when people were more distant in time from their or a CSO's past problems with gambling. Moreover, gambling harm should be related reliably to health utility metrics, including the PWI)¹. Since both of these measures allow for a calculation of decrements to wellbeing, these outcomes were benchmarks for the impact of current legacy harms on people with past gambling problems. By understanding decrements in health and wellbeing from both current and legacy gambling harms, the study sought to quantify the proportion of total gambling harms that occur due to the existence of legacy harms.

Methods

An online panel study recruited people, 18+ years old, who said 'yes' to the question: "Was there a time when ... gambling has caused issues in your life, no matter how minor?" Participants included people who had current or past problems with their own gambling (hereafter "gamblers") and people who instead had problems due to someone else's gambling (hereafter "Concerned Significant Others" or CSOs). A total of 1450 respondents successfully completed the survey. Of these people, 210 indicated that they suffered these "issues," i.e., gambling problems, within the last 12 months. Consequently, this left 1240 people with potential legacy gambling harms, including 735 gamblers and 505 CSOs. Participants completed the survey between April 8th, 2020 and May 23rd, 2020 but reported on their legacy

¹ The PWI was employed because an equivalent New Zealand measure has not yet been developed.

harms from gambling in 2019 and prior, which helped to avoid potential confounding effects introduced by the emergent COVID-19 pandemic.

Results

One of the first questions for the study was whether people reported experiencing gambling harm after “most” of their issues with gambling problems ended. Participants were asked about the length of their most recent issue with gambling, including an approximate time when “most” of their problems started and ended. Respondents were asked to check-off harms that they experienced due to gambling during this time from a comprehensive list of 83 harms identified by Browne et al. (2017) as relevant to New Zealanders. Subsequently, respondents were given a list of all the harms that they said they suffered from in the past and were asked to indicate which of these harms they still experienced over the last 12 months. Of the gamblers in the sample (n=735), 417 (56.7%) indicated that they still had some legacy gambling harms. Similarly, of the 505 Concerned Significant Others (CSOs) who had someone in their lives who had caused them gambling-related issues, 291 (57.6%) also reported legacy harms from this past issue. Thus, most people who indicated that they had some gambling-related problems in their past, more than 12 months distant, still suffered from some gambling-related harm.

Pattern of decay/reduction in legacy gambling harms

Gambling harm showed a logistic pattern of decay over time for gamblers. This reduction in harm was demonstrated by less harm as a function of increasing distance from their most recent gambling problems. Most harms appear to disappear within the first 5 years with a lesser number of long-lived harms. The half-life of legacy harms, defined as the length of time when it is 50% likely that the harm will remain, averages 4.0 years. As a category, financial harms appear to be the most long-lasting, where the average half-life is 5.0 years. In contrast, work/study harms, such as a loss of job or educational opportunity, is shorter at 2.4 years. Contrary to expectations, however, there was no significant decay/reduction in legacy harms reported by CSOs with greater distance from gambling problems. Future research will be needed to explore if this lack of decay in harms might be due to either methodological issues or a lack of power for detecting small effects.

Harms that are long- and short-lived

It was possible to calculate the relative longevity of each specific legacy gambling harm by averaging the distance, in time, from the past episode of gambling problems. Shorter distances are indicative of harms that are less long-lasting. Unlike the analyses on broad categories of harm, above, calculations on specific harms were based on measurements with necessarily greater variability. Consequently, long and short-lived specific harmful outcomes were not expected to necessarily come from the broad categories of harm that decay/reduce relatively slowly vs. quickly, respectively. From the calculation, it appears that harm of “neglected my whānau or family responsibilities” was more short-lived, along with acute financial problems. Fortunately, harms related to violence and injury also appear to be relatively more short-lived. Only the harm of “ate too much”, endorsed as a consequence of gambling, appeared to be significantly longer lasting than other harms, although we speculate that this harm may not be a continuing consequence of gambling but rather a common concern shared amongst

respondents. Our qualitative data, described below, failed to produce convergent evidence for this particular continuing harm being of notable consequence.

Impact of legacy harms on wellbeing and health utility

Gambling harms were statistically associated with decrements in health and wellbeing as measured by the Health Utility Weight Index (HUWI) and the Australian Unity Personal Wellbeing Index (PWI). Participants who endorsed a greater number of legacy harms had correspondingly low health and wellbeing on both measures. This finding suggests that reports of legacy gambling harm are affecting people in nontrivial ways and are not simply a reflection of hyperbolic remembrances of past gambling problems.

Health and wellbeing also substantially and reliably improved as a function of greater distance in time from a gambler's past problems. This finding suggests that when gamblers' legacy harms decay/reduce over time, this change is reflected in their improving life circumstances. However, CSOs showed only a marginal improvement in health and wellbeing as a function of greater distance from a past gambling problem, and moreover this relationship was statistically non-significant. It is unclear why no significant improvement was found.

Legacy harms as a proportion of total harm

Given the significant impact of legacy harm on health and wellbeing, it is arguably useful to understand what proportion legacy harms contribute to the total decrement experienced by gamblers during a discrete episode of gambling problems as well as during recovery. Knowing the decrements to health and wellbeing during an episode of problem gambling, as well as the decrements that fall away in the course of recovery, it is possible to calculate this proportion. Using the metric of health-utility weights (HUW), legacy harms were estimated to represent 23.7% of the total impact of harm on the gambler. That is, 23.7% of the aggregate harmful impact of gambling accrues to gamblers after "most" of their gambling problems have ended. Making a similar calculation using the Australian Unity Personal Wellbeing Index (PWI), an estimated 19.4% of the aggregate impact of harm is experienced in recovery. In past research, some legacy harms may have been missed when non-gamblers were excluded from surveys (Delfabbro et al. 2020), although prior research documenting harms in New Zealand included such legacy harms, although without discriminating them, by recruiting people who had gambling issues at any point in their lives (Browne et al. 2017). This research thus highlights the importance of including current non-gamblers when measuring harm.

Lifetime impact of gambling harm, inclusive of legacy harms

Using the estimated decrements in health and wellbeing from both current gambling and legacy harms from past problems, along with the average number of episodes of gambling problems, it is possible to make an estimation of the likely (average) lifetime impact of gambling harm on health and wellbeing. For moderate-risk gamblers, this lifetime impact was a loss in utility of 0.54 years, or approximately the equivalent of 6 months of life lost due to disability. For people with problem gambling, this loss was 1.81 years or one-year and 10 months of life loss due to disability. Thus, lifetime gambling problems subtract substantially from people's normal ability to enjoy the benefits of life.

Differential effects of legacy harm by Ethnicity, Age and Gender

Few differences were found in the persistence of legacy harms by ethnicity (European, Māori, Asian or Pacific people) or gender. This does not suggest, however, that overall harm, inclusive of legacy harms, was the same for these peoples. Instead, once a person experienced a gambling-related harm, there was no identifiable (significant) difference in these groups in whether these harms continued. Younger respondents (i.e., under age 40), perhaps unsurprisingly, were marginally more likely to endorse continuing legacy financial harms, relationship harms and work-study harms from their gambling.

Qualitative Analysis of Interviews with Treatment and Public Health Professionals

A qualitative study was conducted to provide in-depth evidence for legacy, life course and intergenerational harms across the taxonomy of harms outlined by Langham et al. (2016). A semi-structured interview protocol was developed (see Appendix B) to prompt interviewees to comment specifically on the most frequent legacy harms that were identified in the quantitative survey that was conducted prior to the interviews (as described above). An additional purpose of the qualitative interviews was to gain an understanding of how legacy, life course and intergenerational harms are addressed in treatment and public health promotion.

Methods

Interviews involved 20 participants who were clinicians (8), team-leaders (6), public health promoters (3) and caseworkers (3); all with direct knowledge and experience with people affected by gambling harm. These professionals spanned organisations serving the general public, as well as services specifically addressing the needs of Māori, Pacific and Asian peoples. The interviews, whilst structured around harms from all categories identified by Langham et al. (2016), were analysed using thematic-analysis to identify major concepts surrounding interviewees' understanding of legacy, life course and intergenerational gambling harm. Due to the practicalities of pandemic restrictions, interviews were conducted via Zoom videoconference and recorded. Interviews were transcribed and analysed with the assistance of NVivo software.

Results

Intergenerational gambling harms were identified by participants primarily as outcomes that narrow possibilities for future achievements of children and other family members, often because of financial constraints. Importantly, however, gambling harm was viewed more systemically than individual-level harm directly emanating from a gambler experiencing problems. Instead, gambling was identified as causing harm to the environment and communities people live in. Degradation of the environment, broadly construed, included the normalisation of a cycle of poverty in already vulnerable communities. People see gambling as a way of solving financial problems. When gambling fails to solve the financial problems that people have, as it most often does, the resulting poverty is often experienced as a normal state of affairs. Moreover, gambling-industry interests were viewed as detrimental to people's political power. Gambling lobbying advanced interests motivated by profit and the benefits to communities are perceived as not transparent or equitable. Gambling revenue, even when

redistributed, is a form of taxation that takes from often marginalised communities, and the grants that flow from such activities are not always shared fairly. Often the most marginalised communities were not even aware of the availability of such grants and benefits.

Whilst benefits (revenue) from gambling were inequitably shared, such that marginalised communities received fewer community benefit funds, the harms were also more concentrated amongst people from Māori, Pacific and Asian communities. The gambling harm that pervades such communities creates a poorer environment that causes people loss of control over their destinies. Thus, gambling harm can contribute to wealth leaving some communities with attendant poor educational, vocational and health outcomes that affect future generations - inclusive of people with no direct contact with gambling. Participants identified that the stigma associated with gambling problems interfered with people's ability to engage in cultural activities, such as sharing resources, and manifested as unique problems in each culture. More generally, gambling harm was seen in the erosion of social capital within communities that extends past an individual's gambling problems to create a poorer environment for health, wellbeing and enjoyment of life for entire communities.

The interviewees also reflected on service provision that specifically addressed legacy, life course and intergenerational harm. Most of the services revolved around addressing acute harm, and often in one or two sessions or through individual health-promotion events. Consequently, there is poor provision for addressing legacy harms and little ability for these services to address the systemic harm affecting the community. Most approaches to harm reduction follow the same models used for acute harm when addressing these problems, although much of these harms remain hidden and insulated from these services.

Future service provision to address these shortcomings may employ the concepts identified in the literature for enhancing 'recovery capital.' According to this literature, by strengthening people's access to physical capital (e.g., money, property, etc.), cultural capital (e.g., adherence to cultural values and norms), human capital (e.g., access to education, skills development) and social capital (e.g., strong families, social networks), communities can be better insulated against the insults of crisis-level gambling harm that might otherwise metastasise into legacy, life course or intergenerational harms.

Conclusion

These studies explored the full impacts of gambling harm using novel methods that explicitly capture legacy, life course and intergenerational gambling harms. These harms constitute a large component of the overall burden of harm on individuals, which was estimated, dependent on the method, to be either 19.4% or 23.7% of total impacts on health and wellbeing. Acute financial harms, neglecting Whānau and family responsibilities and physical harm from family violence or personal injury were relatively more short-lived. Once a harm from gambling is experienced, however, there were no identifiable differences amongst ethnicities in whether these harms continued. Importantly, our qualitative results also indicate that attention must be paid to how these gambling harms affect communities, impact on cultural practices, and perpetuate inequalities. There was recognition of poor resourcing for addressing legacy harms relative to crisis level harm. Future research can benefit by explicitly recognising that substantial harm from gambling occurs even after a gambling problem is largely resolved. Service provision, including treatment and health promotion, may benefit from being better

resourced to look beyond immediate treatment of acute gambling problems to also address these residual harms with the consequence of enhancing individual and community capacities for recovery.

Chapter 1: Literature Review

Introduction

Gambling harm is defined as any adverse impact arising, caused or exacerbated by a person's gambling (Langham et al., 2016; Walker, Abbott, & Gray, 2012). Recent public health approaches have extended the focus from only the gambler to also consider the broader impacts of gambling on the spouse, the family and whānau, and the wider community across various aspects of social functioning and wellbeing. The taxonomy of harm discussed by Langham et al. (2016) divided the experience of harm into three categories: general harms, crisis harms, and legacy harms. Most of the literature exploring gambling harm focuses on general² or crisis level harms³ that tend to occur during active periods of gambling, or when gambling involvement reaches crisis point. Legacy harms have received far less attention. Legacy harms refer to those adverse consequences that continue to affect the gambler and their wider networks even after problematic gambling involvement has ceased (Browne, Bellringer, et al., 2017; Browne et al., 2016).

The harm caused by gambling does not always stop when the gambling problem has been resolved. The accumulation of significant gambling-related debt, damage to relationships, loss of employment or impaired physical or mental health are likely to have ongoing effects for gamblers and their families. Legacy harms and the implications of gambling for life course trajectories have largely been overlooked in the gambling literature. In their study of gambling harm in New Zealand, Browne, Bellringer, et al. (2017) identified that life course and legacy harms were present across all seven harm domains identified in the taxonomy described by Langham et al. (2016) (see Figure 1). This includes harm to work and study, financial harm, relationship harm, crime and legal harm, emotional and psychological harm, harm to physical and mental health, and cultural harms. Further, they identified that harms could extend beyond a person's life course by virtue of impacting future generations, broader social networks and the wider community. These are referred to as intergenerational harms and include harm experienced by children due to parental gambling. For example, the breakdown of families can cause estrangement and dysfunction that transcends generations, and the accumulation of financial hardship can contribute to poverty and social disadvantage that can lower socioeconomic standing.

² Harms that can occur at any level of gambling severity (eg, loss of productivity, dishonest communication with family).

³ Severe harms that often occur when gambling is at its worst and serve as a motivator for seeking help (e.g., bankruptcy, relationship breakdown, loss of housing).

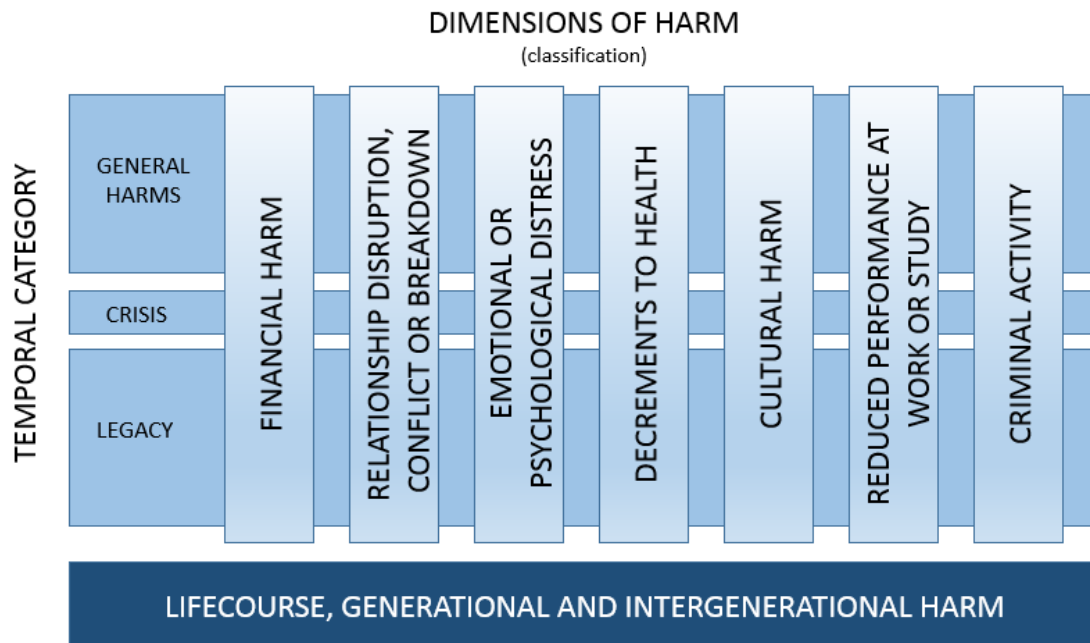


Figure 1 Conceptual framework for gambling-related harm

Using the seven harm dimensions detailed by Langham et al. (2016) and incorporated in research by Browne, Bellringer, et al. (2017), this chapter explores and discusses the legacy harms caused by a person's gambling. It identifies ways in which these harms may cause life course or intergenerational harm for gamblers and their families in New Zealand. As New Zealand is home to a diverse ethnic population, many of whom are disproportionately affected by gambling and gambling harm (Abbott, Bellringer, Garrett, & Mundy-Mcpherson, 2014; Mason & Arnold, 2007; Rankine & Haigh, 2003; Walker et al., 2012), this chapter includes specific discussion of the unique legacy harms that are likely to be experienced by New Zealand's main ethnic groups.

Education and Vocation Harms

Gambling can impact work and study by reducing workplace or study performance (due to fatigue or distraction), increasing absenteeism or reduced availability, and at its worst, contribute to a departure from education and/or job loss (Bellringer et al., 2009; Browne, Bellringer, et al., 2017; Browne et al., 2016; Downs & Woolrych, 2010; Lorna Dyal, 2004; Hawley, Glenn, & Diaz, 2007; Langham et al., 2016; Li, Browne, Rawat, Langham, & Rockloff, 2017; Nower, 2003; Perese & Faleafa, 2000; SHORE & Whariki, 2006; Sobrun-Maharaj, Rossen, & Wong, 2012; Walker et al., 2012). Despite the majority of these harms occurring during periods of active gambling, the ongoing impact can have lasting effects on education and long-term vocational opportunities, future employment prospects, and ultimately, the ability to improve the socioeconomic position of the gambler and their family.

Workplace and study-related harms experienced during times of gambling can contribute to poor performance records, damage to a person's professional reputation or cause workplace/study conflict that can have ongoing repercussions for both academic and vocational progression. Those with poor performance records may find it difficult to gain future

employment, miss out on promotions and/or opportunities to move forward in their career due to damage to their professional profile (Browne, Bellringer, et al., 2017). Since many workplaces are built on mutual trust (Lind, Kääriäinen, & Kuoppamäki, 2015) and a desire to remain profitable (Hawley et al., 2007), employers may be unwilling to provide references for, or hire/promote workers who have a history of problem gambling (Browne, Bellringer, et al., 2017; Hawley et al., 2007). For example, Lowe (2004) (see also Hawley et al., 2007) described the results from the *Making Recovery America's Business Survey* conducted by Hazelden Foundation (2003) that considered the attitudes of employers (n = 200) towards addiction within the workplace. A quarter of employers surveyed felt it was easier and less costly to terminate an employee with an addiction rather than bearing the costs associated with impaired performance/absenteeism or the costs of providing support services. Twenty-five percent of employers surveyed claimed that if they were aware a candidate was in recovery (for drug or alcohol addiction), they would be less likely to hire them for the position. The survey was related to attitudes towards substance use disorders. Nevertheless, gambling problems are similarly transitory and have the potential to reoccur at later life stages (Hodgins, Wynne, & Makarchuk, 1999; Reith & Dobbie, 2013; Slutske, Jackson, & Sher, 2003), and thus employers may avoid hiring a candidate with a history of gambling problems due to concerns regarding the indirect costs associated with performance issues, workplace theft, or the side effects of other gambling-related harms (e.g., insurance to cover medical expenses); and/or the direct costs associated with treatment provision should the candidate return to gambling (Hawley et al., 2007; Lowe, 2004).

Excessive gambling early in life (e.g., childhood or adolescence) is associated with poor school performance and an inability to achieve normal developmental milestones, which have long-term implications for securing employment and generating stable income (Fong, 2005). For example, departure from study plans can delay entry into the workforce, that in turn, impacts ability to secure financial assets (e.g., car, house), live independently, or may even result in the delay of life course milestones (e.g., marriage, children). In their study of treatment seeking gamblers (N=1072), Hawley et al. (2007) found that 28% of those surveyed were between the ages of 18 and 35 years, a typical time for professional growth, where people establish themselves within the workforce and generate a professional profile. A study of gambling-related court cases in Canada described one case where a college student attempted suicide as a result of gambling student loan money (Arthur, Williams, & Belanger, 2014). Issues with gambling early in one's career may not only damage the gambler's professional standing, and thus future employability, but since gambling is not static (Hodgins et al., 1999; Reith & Dobbie, 2013; Slutske et al., 2003), there is the potential that problems may reoccur later in life, causing further damage to career development (Hawley et al., 2007).

As well as impacting work performance and career development, gambling can lead to workplace offences that result in disciplinary action (Binde, 2016; Browne, Bellringer, et al., 2017; Crofts, 2003; Downs & Woolrych, 2010; Nower, 2003; Warfield, 2011; 2013). Offences perpetrated by gamblers against the workplace may include borrowing or taking money from an employer or colleague, misuse of company resources, or misappropriating funds to finance gambling; and can range from minor transgressions to serious criminal offences (Binde, 2016; Crofts, 2003; Downs & Woolrych, 2010; Nower, 2003; Warfield, 2013). A study by Warfield (2011) explored the details of 181 cases of gambling-related fraud in Australia and found that 60% of these were perpetrated by an employee. Employee theft or gambling-related crime can result in the loss of employment, impairment of career prospects, and imprisonment,

making it more difficult for those who have committed offences to re-enter the workforce or volunteer for community or charity organisations; particularly in areas that require police clearances or that involve control over financial assets (Binde, 2016; Browne, Bellringer, et al., 2017; Crofts, 2003). Usually, in order to commit financial crimes within the workplace, the offender is in a position of trust which has usually been attained over some period of time (Binde, 2016). For example, Crofts (2003) detailed an offender who, as a result of their crimes, lost their management position that had taken them years to establish. When gambling starts to impact work performance and causes people to commit financial transgressions in order to recoup gambling losses, it has the potential to destroy years of hard work building a professional presence that may never be fully recovered. Even those whose offences go unreported to authorities and are able to retain their position are likely to struggle to regain employer trust or be subject to strict rules and monitoring as a condition of their ongoing employment (Binde, 2016).

Education and vocational harms in the New Zealand context

Due to the disproportionately greater experience of gambling problems and gambling harm within New Zealand's minority ethnic populations in comparison with the dominant European population (Abbott, Bellringer, Garrett, & Mundy-Mcpherson, 2014; Rankine & Haigh, 2003; Walker et al., 2012), the ongoing effects of gambling on vocational and educational opportunities are likely to be greater than the general harms mentioned earlier (Bellringer et al., 2013; Browne, Bellringer, et al., 2017; Dyall, 2004; Guttenbeil-Po'uhila, Hand, Htay, & Tu'itahi, 2004; Perese & Faleafa, 2000; SHORE & Whariki, 2006; Sobrun-Maharaj et al., 2012; Walker et al., 2012). For example, despite educational attainment growth over the past three decades for minority ethnic groups in New Zealand (Ministry of Social Development, 2016), Māori and Pacific populations consistently have lower qualification rates across secondary and tertiary levels of education (Bishop, Berryman, Cavanagh, & Teddy, 2009; Easton, 2013; Marie, Fergusson, & Boden, 2008; Ministry of Social Development, 2016) and significantly higher student debt burden and financial strain (Theodore et al., 2018). In the latest Social Report, the Ministry of Social Development (2016) reported that a qualification of at least NCEA Level Two⁴ was obtained by 86.6% of Asian people, 75.4% of European/Other people, 57.1% of Māori, and 56.9% of Pacific people. These differences were more marked for obtaining a bachelor's degree or higher degree: Asian people (48.8%), European/Other people (29%), Māori (15.3%), and Pacific people (12.7%). It is impossible to ascertain the impact of harmful gambling on these rates; and it is well known that poverty/family resources and barriers at school such as racism negatively affect educational participation and achievement (Chapple, Jeffries & Walker, 1997). However, it remains that harmful gambling negatively impacts fulfilment of education (Browne, Bellringer, et al., 2017), and where significant population differences already exist, the impact from harmful gambling creates a double jeopardy situation and is likely to contribute to the inequity in educational attainment.

For Māori, the harm from gambling has been discussed in relation to the ongoing effects of colonisation, including limited education and employment opportunities (Dyall & Hand, 2003;

⁴ National Certificate of Educational Achievement (NCEA Level 1 – 3) is the current official secondary school qualification in New Zealand. NCEA Level 3 is equivalent to the standard Australian Year 12 programme.

Dyall, 2010; Herd, 2018). That is, gambling activities are a product of colonisation and the harms from gambling should be considered with the knowledge that colonisation manifests in lower representation in positive indicators (e.g., economic wellbeing, educational attainment), and over-representation in negative indicators (e.g., addictions, imprisonment rates). Another example relates to New Zealand's Asian community, which consists mostly of migrants and international students (Li & Li, 2008; Sobrun-Maharaj et al., 2012; Samson Tse, Wong, & Chan, 2007). Not only can gambling contribute to financial and psychological strain, jobs and businesses can be jeopardised or lost as work performance suffers and absenteeism increases (Samson Tse et al., 2007). Amongst Asian international students, harmful gambling is a significant issue, with students gambling tuition fees or money designated for living expenses (Li & Li, 2008; Samson Tse et al., 2007), ultimately resulting in the termination of their student visas (Wong & Tse, 2003), or borrowing money from loan sharks⁵, family members or friends in order to fund their tuition or afford other living expenses (Li & Li, 2008; Sobrun-Maharaj et al., 2012). The long-term effects of being unable to sustain financial security, attend an educational institution, or maintain a residence, significantly jeopardise the ability for Asian immigrants to establish themselves in New Zealand (Wong & Tse, 2003). The harmful impact of gambling on educational attainment and subsequent job prospects can contribute to long term disadvantage, impacting intergenerational socioeconomic standing.

Workplace stress and relapse

The challenges of returning to meaningful work have been discussed in other fields of research, where treatment programmes have incorporated vocational rehabilitation schemes designed to assist former substance abusers in returning to meaningful employment (Platt, 1995). Inconsistent employment patterns or frequency of job change have been shown to be associated with increasing problematic gambling (Reith & Dobbie, 2013). Thus, ongoing workplace difficulties have the potential to undermine attempts to remain abstinent from gambling. In fact, some gamblers have reported being concerned about returning to work for fear that having access to disposable income and, subsequently, the ability to obtain consumer credit would entice them to gamble (Downs & Woolrych, 2010). The ongoing effect of gambling on employment and subsequent income streams, therefore, has greater implications beyond finding work and re-establishing oneself within the workforce, but is likely to be interrelated with a person's recovery and ability to avoid relapse.

Intergenerational effects on education and employment

Research suggests that parental social class and early development and education are associated with social standing at mid-life and social mobility (Deary et al., 2005; Schoon, 2008). The negative impact of gambling on vocational and educational attainment and, thus, the ability to progress in terms of socioeconomic standing may have ongoing impacts for future generations. Prospective research suggests that those with lower levels of education commonly report greater childhood adversity (e.g., financial difficulties, interpersonal conflict, family illness) (Korkeila et al., 2010). Children of problematic gamblers may experience educational harm since school attendance or achievement may be affected if the child is unable to concentrate due to distraction and/or poor nutrition, cannot get to school (parent not

⁵ A money lender with extremely high interest rates, typically exploitative and often illegal.

at home) or afford resources, there is a lack of parental supervision of class attendance or homework completion, or the child misses school to look after their parents (Browne, Bellringer, et al., 2017; Darbyshire, Oster, & Carrig, 2001; Jacobs et al., 1989). Outside school, the child may face increased social isolation if they cannot afford to attend social events, and often report greater difficulty securing paid employment (Jacobs et al., 1989). Browne, Bellringer, et al. (2017) reported cases in which children had withdrawn from studies due to parental gambling, resulting in anger and resentment that impacted relationships with parents, and influenced the individual's employability and future earning potential. The authors noted that:

“These types of harm to children are of particular concern due to the importance of education in addressing poverty and inequality. The effect on education combined with the impact on socio-economic status from problematic gambling behaviours creates a significant risk of intergenerational harm.” (Browne, Bellringer, et al., 2017, p. 100).

Educational and vocational harms impact on future financial prospects, but gambling harm has more pervasive effects on personal and family finances. This topic is explored in the next section.

Financial Harms

The devastating impacts of gambling on a person's finances is one of the most widely recognised harms associated with problematic gambling (Browne, Bellringer, et al., 2017; Downs & Woolrych, 2010; Walker et al., 2012). Financial harm can range from being unable to afford essential items or utilities like food, clothing, personal care products or electricity; to crisis level harms such as the accumulation of significant debt, the need to sell items, and even bankruptcy (Browne et al., 2016; Holdsworth, Nuske, Tiyce, & Hing, 2013; Li et al., 2017; Nower, 2003; Walker et al., 2012). McCormack and Jackson (2000) reported that the debt incurred by treatment seeking gamblers (n=1,105) could vary from under \$100 (AUD) to upwards of \$600,000 but averaged \$13,159. Forty percent of the sample reported having gambling-related debts between \$1,000 and \$49,999, with 2.4% owing more than \$100,000. Debt and poor financial history resulting from harmful gambling does not disappear once gambling expenditure stops (McCormack & Jackson, 2000). In fact, gambling debt can accumulate despite abstinence from gambling due to poor financial management and damaged credit history, that has flow on effects for other life domains such as relationships, health and overall wellbeing (Arthur et al., 2014; Browne, Bellringer, et al., 2017; Downs & Woolrych, 2010; Lind et al., 2015; Oksanen, Savolainen, Sirola, & Kaakinen, 2018).

People with a gambling problem often get caught in what can be called a *cycle of debt* (Binde, 2016; Crofts, 2003; Downs & Woolrych, 2010; Guttenbeil-Po'uhila et al., 2004; Lind et al., 2015; Oksanen et al., 2018; Sakurai & Smith, 2003; Swanton & Gainsbury, 2020). When gambling becomes problematic and contributes to financial difficulties, financial relief is sought via loans or credit facilities to fund gambling or manage living expenses. When loans fail to be repaid, it causes either additional borrowing (e.g., more loans to repay loans), or a loss in the ability to receive credit. The debt either continues to accumulate, more drastic action is taken to seek out additional resources (such as using illegal money lenders or committing crimes), or help is sought (Arthur et al., 2014; Binde, 2016; Downs & Woolrych, 2010; Ellis et al., 2018; Lind et al., 2015; Oksanen et al., 2018; Sakurai & Smith, 2003; Walker et al., 2012). Failure to

repay loans, the continued accumulation of debt, and/or credit losses can occur well after the gambling has stopped (Lind et al., 2015).

Most commonly, debts are repaid using commercial money lenders, by remortgaging the family home, selling assets or via family loans or gifts (Binde, 2016; Downs & Woolrych, 2010; Sakurai & Smith, 2003; Walker et al., 2012). When borrowing from commercial lenders, late repayments or defaulting on loans is likely to result in a poor credit rating (Browne, Bellringer, et al., 2017; Downs & Woolrych, 2010; Lind et al., 2015). In New Zealand, gamblers reported experiencing the impact of poor credit for five years after reaching financial stability; however, this time frame was sometimes extended due to other financial hardships or gambling relapse (Browne, Bellringer, et al., 2017). Poor credit history often results in larger security bonds or deposits, and/or the need to turn to short-term lending services (such as loan sharks) that incur higher interest rates (Browne, Bellringer, et al., 2017; Browne et al., 2016; Langham et al., 2016; Li et al., 2017; Oksanen et al., 2018; Swanton & Gainsbury, 2020). Many of these short-term lenders are predatory, as they are readily available regardless of financial stability, involve exorbitant interest rates, have short payback periods and substantial penalties for late repayments or loan defaults (Browne, Bellringer, et al., 2017; Langham et al., 2016; Oksanen et al., 2018; Swanton & Gainsbury, 2020). Given limited regulation for these types of lenders, people can often take out multiple loans from different companies (Lind et al., 2015; Swanton & Gainsbury, 2020), meaning the accumulated debt and associated fees can be substantial. In some jurisdictions (Finland for example), consumer debt is enforceable for 15 years and during an enforcement period, the rates paid to creditors can be approximately 7% higher than the standard benchmark interest rate (Oksanen et al., 2018). In New Zealand, the Credit Contracts Amendment Bill (April 2021)⁶ introduced a credit cap (borrowers will not pay more than 100% of their loan); a rate cap (interest and fees cannot be more than 0.8% per day); and will provide some protection to ensure borrowers can afford to repay the loan. Despite this, the repayment of a loan plus 100% can still place significant financial pressure on families, illegal money lenders will still be available, and implementing and enforcing some of the requirements of the bill might be difficult in practice (Callinan & Harkness, 2019).

Once all options for borrowing funds have been exhausted, desperation may encourage gamblers to pursue illegal avenues for sourcing finances, such as engaging in criminal acts, which are likely to be more costly and contribute to other experiences of harm (Adolphe, Khatib, van Golde, Gainsbury, & Blaszczyński, 2019; Arthur et al., 2014; Bellringer et al., 2009; Browne, Bellringer, et al., 2017; Ellis et al., 2018; Langham et al., 2016; Lind et al., 2015; Oksanen et al., 2018; Sakurai & Smith, 2003; Swanton & Gainsbury, 2020). For example, a treatment provider in a forum on gambling comorbidities spoke of a client who borrowed money illegally at an interest rate of 42% (Holdsworth, Haw, & Hing, 2012). McCormack and Jackson (2000) found that those who reported having gambling-related debt were two and a half times more likely to suffer financial difficulties and commit illegal acts. In their study of gambling-related crime, Crofts (2003) found that many offences were committed in an attempt to repay gambling debt, particularly those owed to loan sharks. One case described a gambler who had committed a crime five years post-gambling just to repay debts to illegal lenders (Crofts, 2003). An exploratory New Zealand study conducted by Bellringer et al. (2009) showed that when asked about the factors that contributed to their unreported criminal or

⁶ The Credit Contracts Amendment Bill will take effect in April 2021.

harmful behaviours, 73% of participants listed poverty or financial stress as a significant contributor, with 52% listing it within their top 3 factors.

For young adult gamblers, early financial struggles can mean failure to set themselves up financially, making it difficult to establish themselves and create a stable foundation on which to build on in later stages of life (Oksanen et al., 2018). Research reported by McCormack and Jackson (2000) suggested that while younger gamblers were more likely to accumulate gambling-related debt, those with higher debt (owe more than \$100,000 AUD) were more likely to be older (mean age 41 years). Thus, despite the greater frequency of debt among younger gamblers, debts are comparatively smaller than older cohorts of gamblers. However, older gamblers are likely to have accumulated greater assets that can be sold or refinanced in order to seek credit to fund gambling and avoid accruing gambling debt. Those who have exhausted these options and have turned to lenders are likely to have been accumulating debt longer than younger gamblers. Depending on the severity of the problem, for older cohorts, gambling can potentially result in the loss of a life's work which may never be recouped.

The long-term financial struggles associated with harmful gambling can contribute to the escalation of harms experienced across other domains (Swanton & Gainsbury, 2020). For example, an inability to repay debts may mean gamblers are forced to rely on friends or family for financial assistance (Lind et al., 2015; Walker et al., 2012), placing a greater burden on relationships and potentially contributing to greater feelings of shame. Spouses or affected others may be burdened with the ongoing responsibility of managing household finances (Dickson-Swift, James, & Kippen, 2005; Downs & Woolrych, 2010; Holdsworth et al., 2013; Lorenz & Yaffee, 1988), be required to take on extra jobs or duties to meet financial shortfalls (Holdsworth et al., 2013), or experience a reduced standard of living (Swanton & Gainsbury, 2020; Walker et al., 2012), which can put added pressure on relationships and cause relationship conflict. This has implications for the experience of intergenerational harm. For example, loss of housing or change of address due to poor finances or a relationship breakdown is likely to disrupt a child's schooling and social development, which can impact long term educational or vocational prospects (Downs & Woolrych, 2010). Financial hardship may also force cohabitation or commitment in an unhealthy relationship due to the inability to achieve financial independence (Browne, Bellringer, et al., 2017; Browne et al., 2016; Dickson-Swift et al., 2005; Langham et al., 2016). Lind et al. (2015) argued that financial pressure contributes to the escalation of relationship issues, which acts as a precursor to family violence. The accumulation of economic hardship and the strain financial difficulties place on relationships has also been related to detriments to psychological wellbeing (e.g., increased risk of suicidal ideation or attempts, poor mental health and psychological distress; Battersby, Tolchard, Scurrah, & Thomas, 2006; Ledgerwood, Steinberg, Wu, & Potenza, 2005; Oksanen et al., 2018; Petry & Kiluk, 2002; Swanton & Gainsbury, 2020).

Financial hardship and poor credit history can make it challenging to reach life course milestones and subsequently alter life trajectories. Securing long-term finances to purchase significant assets such as buying a house or car is likely difficult (Browne, Bellringer, et al., 2017; Lind et al., 2015), and at its worst, can have intergenerational consequences by forcing families into a cycle of poverty and financial vulnerability (Browne, Bellringer, et al., 2017; Browne et al., 2016; Downs & Woolrych, 2010; Langham et al., 2016; Li et al., 2017; Walker et al., 2012), causing people to make sacrifices in order to make ends meet (Downs & Woolrych, 2010; Holdsworth et al., 2013; Walker et al., 2012). For example, Holdsworth et al.

(2013) detailed the case of an affected other (aged 50 years) who reported that the loss of life savings resulted in having to go back to working 12-hour days, rather than opening her own business, in order to provide financial security (Holdsworth et al., 2013). Further, research by McCormack and Jackson (2000) suggested that gamblers who reported gambling-related debts were more likely to be in the low (\$120 AUD/week) to middle (\$599 AUD/week) income groups, making it difficult for them to recover following periods of substantial financial hardship. At its most extreme, financial hardship and being caught in the poverty cycle can contribute to reliance on welfare, and other ongoing issues associated with disadvantage such as decreased access to resources, bankruptcy, and homelessness (Browne, Bellringer, et al., 2017; Browne et al., 2016; Langham et al., 2016; Walker et al., 2012), all of which have ongoing effects on the broader community and subsequent generations (Browne et al., 2016).

Financial impacts on Māori, Pacific and Asian people

Ethnic minority populations in New Zealand share similar financial harms as others when gambling is at its worst (Abbott, Bellringer, Garrett, & Mundy-McPherson, 2014; Abbott, 2001b; Bellringer et al., 2013; Browne, Bellringer, et al., 2017; Dyall, 2003; Guttenbeil-Po'uhila et al., 2004; Sobrun-Maharaj et al., 2012). However, the financial impacts of gambling on already disadvantaged families can be devastating, with reports of eviction, re repossession of goods and property, or the need to remortgage being considered normal for many gambling-affected families (Guttenbeil-Po'uhila et al., 2004; Kolandai-Matchett et al., 2017; Perese & Faleafa, 2000; Rankine & Haigh, 2003).

Many Māori and Pacific people reside in low income areas that tend to host a significant portion of gambling venues in New Zealand (Adams, 2004; Dyall, 2004, 2007; Rankine & Haigh, 2003; Sherwood, 2006), further contributing to the recurrent patterns of harm experienced by both Māori and Pacific people (Clarke et al., 2006; Dyall, 2007; Rankine & Haigh, 2003). Within Pacific communities, gift-giving (e.g., fa'alavelave⁷ among Samoans and fetokoni'aki among Tongans) is an important cultural practice which emphasises generosity and reciprocity, and reinforces the relationships and social ties between immediate and extended family/community members (Cowley, Paterson, & Williams, 2004; Evans, 2001). Perese and Faleafa (2000) reported that many Pacific people prioritised fulfilling gift-giving obligations over meeting their household expenses, despite causing relationship conflict amongst residents (Perese & Faleafa, 2000; Urale, Bellringer, Landon, & Abbott, 2015). In other words, the requirement to fulfil cultural obligations took precedence over household financial needs, which could ultimately have long-lasting negative effects not only on family dynamics and relationships but also on cultural dynamics and relationships.

National and international research has found that the mental health and wellbeing of Asian immigrants and refugees is particularly affected by their financial situation (Aycan & Berry, 1996; Chang, Morris, & Vokes, 2006; Sobrun-Maharaj, Rossen, & Kim, 2011). Sobrun-Maharaj et al. (2012) reported that financial stress was both a precipitating factor and a consequence of problem gambling, as many people gambled in an attempt to alleviate financial problems. For migrants settling into a new country, gambling could compromise their ability to rent or purchase a home (Wong & Tse, 2003), and contribute to stress due to a loss

⁷ The exchange of gifts such as fine mats, money, and other types of gifts at significant occasions.

of financial security. Financial instability could also jeopardise working visas, potentially causing deportation and significantly altering life plans. Even if deportation does not occur, poor financial instability can cause people to be disillusioned by their future in New Zealand, prompting them to consider whether they stay or return to their home country (Sobrun-Maharaj, Rossen, & Wong, 2013; Sobrun-Maharaj et al., 2012).

Lack of resources impede treatment-seeking and abstinence

Financial insecurity or lack of resources can also impede treatment or attempts to minimise gambling participation. While financial hardship has often been reported as a motivator for seeking treatment (Swanton & Gainsbury, 2020), those unable to manage their own finances may subsequently experience less financial flexibility given increased monitoring or regulation by family, or being reliant on third-parties to access their money (e.g., banks or debt advice agencies), which are likely to incur additional fees (Browne, Bellringer, et al., 2017; Downs & Woolrych, 2010). Thus, the process of trying to control gambling urges may feel like a punishment when financially disadvantaged, tempting people to return to gambling in an effort to recuperate losses, pay debt, or otherwise better their financial position (Crofts, 2003; Hodgins & el-Guebaly, 2004; Samuelsson, Sundqvist, & Binde, 2018; Swanton & Gainsbury, 2020). The inability to repay debts or afford everyday expenses can add to financial stress and cause the individual to be stuck in a perpetual loop of financial vulnerability and hardship (Browne, Bellringer, et al., 2017; Downs & Woolrych, 2010; Oksanen et al., 2018).

Since financial resources are often shared within a household, these harms often impact upon personal relationships. Details of harms from gambling related to relationships are covered next.

Relationship Harms

Gambling can impair relationships between the gambler, their partner/spouse, children, friends, and their broader network of family and whānau (Browne, Bellringer, et al., 2017; Dickson-Swift et al., 2005; Goodwin, Browne, Rockloff, & Rose, 2017; Salonen, Alho, & Castrén, 2016). Harm to relationships include lost trust resulting from deception, attempts to conceal gambling, disruption to, or neglect of, family life resulting from lost time and resources spent on gambling, increased relationship and family conflict, relationship breakdown (including separation and divorce) and, in some cases, family violence (Binde, 2016; Browne, Bellringer, et al., 2017; Browne et al., 2016; Dickson-Swift et al., 2005; Dowling et al., 2016; Fong, 2005; Guttenbeil-Po'uhila et al., 2004; Hing et al., 2020; Holdsworth et al., 2013; Landon, Grayson, & Roberts, 2018; Langham et al., 2016; Palmer du Preez et al., 2018; Perese & Faleafa, 2000; Walker et al., 2012).

Distrust

The lies and secrecy used to conceal gambling involvement can significantly impact on trust, causing disappointment and long-term relationship strain that is not easily rebuilt (Bellringer et al., 2009; Browne, Bellringer, et al., 2017; Browne et al., 2016; Dickson-Swift et al., 2005; Downs & Woolrych, 2010; Guttenbeil-Po'uhila et al., 2004; Hodgins, Shead, & Makarchuk, 2007; Holdsworth et al., 2013; Langham et al., 2016; Perese & Faleafa, 2000; Walker et al., 2012). Downs and Woolrych (2010) describe the impact of gambling on relationships as a

cycle of distrust, where gamblers continue to deceive others despite knowledge of the harm it is causing. When the affected other becomes aware of each new deception, the cycle continues and it becomes harder to rebuild trust, slowly wearing away the resilience of the relationship to overcome hardship (Downs & Woolrych, 2010; Holdsworth et al., 2013). Downs and Woolrych argued that deceit and secrecy becomes a normal response to dealing with problems, potentially contributing to conflict when faced with future problems.

Absenteeism

Some gamblers report mourning or grieving time lost with family due to a preoccupation with gambling. The time and commitment spent on gambling instead of sustaining relationships or working towards resolutions together can also be an ongoing cause of resentment and strain within relationships (Browne, Bellringer, et al., 2017; Browne et al., 2016; Dickson-Swift et al., 2005; Downs & Woolrych, 2010; Hodgins et al., 2007; Holdsworth et al., 2013). This is further escalated by a shift of roles, with affected others often being required to take on the burden of managing finances or monitoring the gambler's activities due to ongoing worry or stress regarding the potential for relapse or dishonest behaviour (Browne, Bellringer, et al., 2017; Dickson-Swift et al., 2005; Holdsworth et al., 2013). The ongoing implications of gambling for the affected other often include increased family duties alongside hypervigilance (e.g., worry about and monitoring of finances) that can be exhausting but also contribute to relationship tension and feelings of shame for the gambler (Browne et al., 2016; Dickson-Swift et al., 2005; Holdsworth et al., 2013).

Relationship dissolution

Relationship damage can impact on partner intimacy, with several studies demonstrating that both gamblers and spouses admit to having had or having considered an extramarital affair (Lorenz & Yaffee, 1986, 1988). For some, the affair occurred after the gambler had remained abstinent from gambling (Lorenz & Yaffee, 1986, 1988). Partners of gamblers have also reported feeling that they needed to remain in a relationship, largely due to financial hardship and believing they had nowhere else to go (Browne, Bellringer, et al., 2017; Browne et al., 2016; Dickson-Swift et al., 2005; Langham et al., 2016). Those who stayed in the relationship were also likely to have reservations about their future, wondering what the implications of staying would be, and whether it would be easier for themselves and their children if they were to leave (Dickson-Swift et al., 2005). Amongst treatment-seeking gamblers, those who reported suicidal ideation or attempts were more likely to report being unhappy with living arrangements (Petry & Kiluk, 2002), with several studies linking relationship conflict with suicidal ideation and/or behaviours (Browne, Bellringer, et al., 2017; Ledgerwood et al., 2005; Maccallum & Blaszczynski, 2003; Petry & Kiluk, 2002). While the Petry and Kiluk research was conducted with treatment-seeking gamblers who had not necessarily stopped gambling, it indicates that ongoing family/social conflict is likely to contribute to circumstances that significantly impair mental wellbeing.

Legacy harms to relationships

Damaged relationships can take years to rebuild. An interviewee in a study of gambling-related harm in New Zealand who worked in the justice system described one case where a client who had stolen from family members was still attempting to reconcile and rebuild relationships 25 years later (Browne, Bellringer, et al., 2017). A study by Ciarrocchi and Reinert (1993)

found that while the length of abstinence improves family circumstances for male gamblers, this was not the case for the wives of gamblers who reported low relationship satisfaction more than two years after the last episode of gambling. This suggests that the burden and harm caused by gambling on the spouse has significant ongoing consequences for family life. Some relationships do not recover, resulting in separation or divorce, or estrangement from children, family and whānau, friends or community (Bellringer et al., 2009, 2013; Browne, Bellringer, et al., 2017; Browne et al., 2016; Darbyshire et al., 2001; Dickson-Swift et al., 2005; Guttenbeil-Po'uhila et al., 2004; Perese & Faleafa, 2000; Wurtzburg, Tan, & Others, 2011). Lost or estranged relationships can impact emotional and mental wellbeing, generating a sense of guilt over ending the relationship, or feelings of loss or loneliness that are amplified during key times (birthdays, holidays etc.) (Browne, Bellringer, et al., 2017; Browne et al., 2016; Langham et al., 2016). Relationship breakdowns involving children are likely to involve continued engagement with family courts in order to determine co-parenting schemes or the division of assets (Browne, Bellringer, et al., 2017; Browne et al., 2016) and have significant intergenerational effects. For children or immediate family members, conflict within and amongst the wider family can contribute to greater estrangement of children from grandparents, aunts or uncles (Browne et al., 2016; Darbyshire et al., 2001). When problems are at their worst and accompanied by financial hardship, relationship breakdown may result in a loss of residence, leading to reliance on welfare and/or homelessness (Browne et al., 2016).

Isolation

Damage to relationships or estrangement from family and whānau, and friends contributes to social isolation (Browne, Bellringer, et al., 2017; Browne et al., 2016; Dickson-Swift et al., 2005; Langham et al., 2016). A reluctance to inform family of the extent of problems, an inability to afford social outings, or an unwillingness to attend social events held at venues where gambling may be present can also contribute to social isolation (Browne, Bellringer, et al., 2017; Dickson-Swift et al., 2005), and lead to consequences for children's development and building of social support networks (Wurtzburg et al., 2011). For example, children of gamblers report having difficulties talking with others about their problems and are often persuaded to keep family secrets in an effort to keep the family together (Wurtzburg et al., 2011).

Loss of trust

Previous experiences of deception and lies may also make it difficult to form healthy, trusting relationships (Browne, Bellringer, et al., 2017). Relationship breakdown or loss of social support networks may mean that people do not have the support needed to remain abstinent from gambling, putting them at greater risk of relapse and serving as a barrier to treatment (Browne, Bellringer, et al., 2017; Samuelsson et al., 2018). For example, when a third party takes over the management of finances and works with the gambler to solve the problem, they provide a space in which the gambler can re-learn how to be an active member of the family by reinvesting in relationships and learning how to manage finances (Downs & Woolrych, 2010). When these supports are broken or lost, and people become isolated, long-term management of problems becomes more difficult, making relapse more likely (Downs & Woolrych, 2010; Samuelsson et al., 2018).

Fostering and maintaining positive relationships is important, potentially more so for populations with a collective (rather than an individual) way of life, or for migrants. For example, *Tauhi va* (building, maintaining and nurturing positive, harmonious relationships) is an essential part of Tongan culture, *kainga* system (extended family network), and social practices. Researchers have noted that the effects of migration and western influences can contribute to the breakdown of the *kainga* system (Guttenbeil-Po'uhila et al., 2004; Guttenbeil-Po'uhila & Tu'itahi, 2007). For example, for Tongans in New Zealand, gambling can compromise an individual's ability to contribute to their family and friends, church, village or wider community, causing isolation from the *kainga* and limiting support for families who may be struggling to build a life in a new country.

Similar values are present in traditional Māori culture, where emphasis is placed on concepts such as *whānau*, *whakawhanaungatanga/whanaungatanga* (building relationships/family relationships, kinship, sense of family connection and belonging), and *koha* (gifts that maintain/foster social relationships and connections, reciprocity) that become eroded or damaged by the individualised nature of gambling, increasing secrecy and isolation from others (Kolandai-Matchett et al., 2017; Levy, 2015; Watene, Thompson, Barnett, Balzer, & Turinui, 2007). The erosion of social connections and the subsequent impact on cultural legacy is discussed further within the Cultural Harms section (below); however, the shift towards an individualised perspective damages relationships within the family and *whānau* and wider community (Dyall, Thomas, & Thomas, 2009; Levy, 2015; Watene et al., 2007).

Asian populations experience similar harms given their collectivist culture, where gambling fosters isolation and shame leading to secrecy, social exclusion and antisocial behaviour (Li & Li, 2008; Lin, Casswell, Huckle, You, & Asiasiga, 2011; Rankine & Haigh, 2003; Sobrun-Maharaj et al., 2012; Samson Tse et al., 2007). For example, Wong and Tse (2003) explained that the extended family structures and community-centred philosophy are key characteristics of Chinese culture and are influenced by Confucius beliefs. Central to Confucian thinking is the idea that wellbeing begins with the individual and continues with the regulation of the family, with emphasis placed on harmonious relationships and caretaking by elders of younger family members (Wong & Tse, 2003). Thus, the collective nature of Asian cultures may act as a protective factor against serious or long-term gambling-related harms through social support. However, researchers have reported that isolation increases as a result of increased periods spent gambling, secretive and antisocial behaviour, or social exclusion due to money being owed (Li & Li, 2008; Lin et al., 2011; Rankine & Haigh, 2003; Tse et al., 2007); in turn, social connections are lost and far-reaching shame is created (Sobrun-Maharaj et al., 2012).

Parental neglect

In research with Pacific families, relationship harms included neglect of children through lengthy absences from the home and a lack of appropriate supervision by gambling parents/caregivers (Guttenbeil-Po'uhila et al., 2004; Perese & Faleafa, 2000). The neglect of children can lead to long lasting effects on the gambler, the child, and their family. For example, the neglect of children can mean increased referrals of children to social service providers and state intervention to remove a child from the family (Rankine & Haigh, 2003). Gambling-related impacts on children are not isolated to Pacific communities. A study by Wurtzburg et al. (2011) that interviewed parent gamblers and their children demonstrated that a significant harm experienced by children is the loss of time and experiences shared with

their parents. Further, while the majority of parents believed their children were unaware of their problems, all the children interviewed were aware of their parents gambling. Feeling like their parents were hiding something from them, and being left to experience the loss and consequences of this by themselves is likely to have lasting impacts on child relationships with parents, with children questioning their ability to trust their parents and feeling as though that they can no longer communicate and confide in their parents. (Wurtzburg et al., 2011). The concept of significant loss and detriment to paternal relationships experienced by children as a result of parental gambling has also been demonstrated in earlier research (Darbyshire, Oster, & Carrig, 2001). For Pacific families, Guttenbeil-Po'uhila et al. (2004) also reported that neglect and abuse of the elderly was a significant concern, either through financial abuse or neglect of their personal needs (Guttenbeil-Po'uhila et al., 2004; Perese & Faleafa, 2000).

Failures to attend to the needs of others, as a defining feature of relationship harms, can extend to criminal violations that harm others or society at-large. Specific harms that result from crime and interactions with the legal-system are detailed next.

Crime and Legal-system Harms

Commonly, gambling-related crimes are financially motivated and include offences such as fraud, stealing, forgery or embezzlement or more severe offences such as robbery, assault or blackmail (Arthur et al., 2014; Bellringer et al., 2009; Binde, 2016; Ellis et al., 2018; Li et al., 2017; Nower, 2003; Rankine & Haigh, 2003; Sakurai & Smith, 2003; Warfield, 2011; 2013); usually corresponding with the severity of the gambling problem (Abbott, 2001a). The Australian Institute of Criminology reviewed serious cases of fraud between 1988 and 1999 in Australia and New Zealand. Of the 148 cases where motivation was clear, gambling was reported as the second most common reason for committing fraudulent offences (15.5%; whereas the most common was greed at 27%) (Smith, 2003). The links between gambling and unreported crime were explored by Bellringer and colleagues (2009) through a two-phase study. Phase one included focus groups and a Māori hui with key stakeholders (i.e., gambling treatment service providers, gambling industry providers, health service providers, community groups) to elicit views on gambling and unreported crime. Findings from phase one informed the design of questionnaires for gamblers and significant others in phase two. The authors reported that although the types of crimes committed were similar, irrespective of ethnicity, there were some offences that more often occurred in certain populations in New Zealand (Bellringer et al., 2009). For example, for Māori people petty whānau and community crimes (e.g., the misuse of community organisation funds) were more often cited, whilst for Pacific people, common offences included family violence, community level crime (e.g., misuse of bingo funds meant for the church) and social services-related crime (e.g., false claim of benefit money). Financial crimes such as fraud, embezzlement, and 'bouncing cheques' were reported more often by European participants. Finally, some people from Asian backgrounds were more likely to be associated with organised or serious crimes such as syndicated gangs, kidnapping, and intimidation (Bellringer et al., 2009).

Justice delayed

Gambling-related crimes can affect a person's life beyond the time of gambling. For example, crime committed during periods of gambling can take time to be tried in a court of law, meaning the offender must wait to find out their sentence and begin rebuilding their lives (Binde, 2016).

Moreover, indirect gambling offences that are committed in an attempt to repay gambling debts and cover financial shortfalls, do not necessarily occur at the time of crisis, making these crimes legacy harms (Binde, 2016). In one study, Crofts (2003) reviewed 300 court cases of gambling-related offences. Three of these cases were for offences that occurred after gambling had stopped. In these instances, offenders had committed crimes years later to attempt to repay old gambling debts.

Criminal records

Dependent on the severity of crimes and any victims involved, an individual might gain a criminal record, lose employment and career, damage their reputation, have relationship difficulties and/or mental health issues and, potentially, have to relocate due to financial hardship or changes to relationship status (Bellringer et al., 2009; Binde, 2016; Ellis et al., 2018; Warfield, 2013). For some, crimes can result in lost money or earning potential, a reliance on social welfare, impaired reputation and an inability to receive credit due to having a criminal record, in turn, making it difficult to manage day to day life; for example: apply for/sustain employment, achieve financial stability, volunteer or participate in community events, or travel internationally (Binde, 2016; Browne, Bellringer, et al., 2017; Browne et al., 2016; Langham et al., 2016; Lind et al., 2015; Warfield, 2013). Furthermore, those who have committed gambling-related offences also reported struggling to function with daily living and fulfilling their role as a family/community member (Ellis et al., 2018). In a paper by Binde (2016, p. 401), the author details a case study described in a Swedish newspaper (Laul, 2016), of a problem gambler who embezzled 5.1 million SEK from her workplace before turning herself in to police:

“Anki (pseudonym) was sentenced to two years in prison. Her husband left her and gained custody of the children. She is currently unemployed, lives by herself in social housing and gets by on social welfare payments. Anki owes her former employer and quick loan companies SEK 6 million.”

The case of Anki demonstrates the potentially far-reaching consequences of gambling-related crime. Those who commit gambling-related offences must also live with the ongoing shame and perceived stigma associated with being labelled a problem gambler, and being classed a “criminal” irrespective of any other penalties associated with a criminal conviction (e.g., paying damages, court fees or serving a custodial sentence) (Binde, 2016; Browne, Bellringer, et al., 2017; Browne et al., 2016; Langham et al., 2016; Warfield, 2013). Some studies have found links between criminal behaviour and suicide (Ledgerwood et al., 2005; Maccallum & Blaszczynski, 2003), which can, in turn, contribute to intergenerational and life course harms (e.g., emotional distress and grief experienced by loved ones, loss of future children, financial instability, children/grandchildren missing out on forming relationships with their relative).

Criminal stigma

There are consequences shared by a gambler’s spouse, partner, child, friends, family and whānau, who are subject to the same stigma associated with problematic gambling and criminal offending, the repercussions of a criminal record and ongoing legal proceedings. Furthermore, family and whānau members may also be victims of gambling-related crime (e.g., money stolen from family members, domestic violence, neglect of children) (Browne, Bellringer, et al., 2017; Dyal, 2007). Often these offences are designed to repay gambling

debts, are an attempt to save face and/or hide the seriousness of the gambling problem (Binde, 2016; Lind et al., 2015), leading to ongoing harm to relationships through damaged trust and resentment. In instances where crimes are committed against family and are not reported or do not result in legal ramifications (Rankine & Haigh, 2003; Sakurai & Smith, 2003), the perpetrator is still likely to be subject to interpersonal conflict, which (as discussed previously) encompasses many other harms and consequences. Relationship breakdown and other criminal offences (e.g., family violence) are likely to attract legal struggles such as custodial sentencing, the dissolution of a marriage, or lengthy custody battles, all of which are likely to incur financial outlay and contribute to emotional distress (Browne, Bellringer, et al., 2017; Browne et al., 2016; Langham et al., 2016).

Violence

For some people, gambling can increase the risk of being a victim or perpetrator of violence (Adolphe et al., 2019; Afifi, Brownridge, MacMillan, & Sareen, 2010; Arthur et al., 2014; Dowling et al., 2018; Dyall, 2007; Kerley, Xu, Sirisunyaluck, & Alley, 2010; Korman et al., 2008; Li et al., 2017; Lind et al., 2015; Roberts et al., 2018). The pressure and stress caused by problematic gambling and its consequences are believed to manifest into outward displays of aggression that are enacted upon within close relationships (Afifi et al., 2010). Research by Afifi et al. (2010) found that problematic gambling was associated with an increased risk of intimate partner violence and child abuse. This study did not assess causation but other studies have suggested that strain on interpersonal relationships and financial hardship caused by gambling are likely to contribute to experiences of family violence (Arthur et al., 2014; Lind et al., 2015) and exacerbate its frequency and severity (Hing et al., 2020). Since such harms do not disappear once gambling stops, it is possible that family violence can occur outside periods of active gambling (Lind et al., 2015), which can lead to involvement with the legal system (e.g., custodial sentencing or criminal conviction) and alter life course trajectories (e.g., incarceration, relationship breakdown, loss of future children, homelessness or loss of employment). In a qualitative study (Hing et al., 2020) several women who had been victims of gambling-related intimate partner violence many years earlier spoke of lifelong trauma, and damage to relationships with children, family and social networks. Most of these women had never recovered from the economic abuse perpetrated by their partner to fund his gambling. Many women had avoided re-partnering due to loss of trust in others and their eroded self-esteem. Furthermore, exposure to violence during childhood, either directly or indirectly, is associated with offending or becoming a victim later in life, known as intergenerational transmission of family violence (Kerley et al., 2010). As a result, family violence motivated by gambling can have lasting effects on future generations.

Research examining the relationship between gambling and domestic violence is limited. For example, in a New Zealand study exploring problem gambling and family violence in help seeking populations, comparisons between different populations were considered indicative due to the very small sample, and the authors stressed that the results should be considered cautiously (Bellringer et al., 2016). Initial findings appeared to indicate that a larger proportion of Māori (19%) and Pacific (15%) gamblers were perpetrators of physical violence than gamblers of European/Other and Asian ethnicities (0% - 4%); and more Māori gamblers (10%) were victims of physical violence than Pacific, Asian, or European/Other participants (4% - 6%) (Bellringer et al., 2016). However, in the multiple logistic regression analyses ethnicity was not significantly associated with violence, indicating that ethnicity per se is not a risk factor,

rather some populations have a higher risk for gambling-associated violence than others (Bellringer et al., 2016). Nonetheless, similar findings have been noted in other small New Zealand studies (Guttenbeil-Po'uhila et al., 2004; Perese & Faleafa, 2000; Sobrun-Maharaj et al., 2013). Fanslow and Robinson (2004) reported that intimate partner violence was associated with self-perceived poor health, physical health problems, and mental health problems, including suicide attempts.

Prison

The prison population including those on remand or serving a sentence, is disproportionality represented by persons who are at risk of problematic gambling (Abbott & McKenna, 2005; Abbott, McKenna, & Giles, 2005; Sullivan, 2001). Furthermore, in New Zealand, Māori are over-represented in both problem gambling (Abbott, Bellringer, Garrett, & Mundy-McPherson, 2014; Abbott, Bellringer, Garrett, & Mundy-McPherson, 2014; Abbott, 2001b; Abbott & Volberg, 1992) and the criminal justice system statistics (Department of Corrections, 2007, 2019; Marie, 2010; McIntosh & Workman, 2017; Richards-Ward & McDaniel, 2007), accounting for over half the prison population in New Zealand (Abbott & McKenna, 2005; Abbott et al., 2005). Periods of incarceration are likely to have ongoing impacts on relationships, financial security of the family unit, and perpetuate the poverty cycle (Browne, Bellringer, et al., 2017) as well as cause significant harm to children and family members. Parents being absent due to incarceration or having to increase workload to compensate for missing partners, employment struggles (Browne, Bellringer, et al., 2017), and child confusion and despair regarding why a parent may be absent while serving jail time (Bellringer et al., 2009) are likely to have ongoing implications for educational attainment, health and emotional wellbeing of children and other adults in the family. Consequently, gambling-related crime that results in a prison term is likely to have broader impacts across other harm domains that affect others besides the perpetrator themselves.

Contrary to findings regarding incarcerated Māori problem gamblers, who were more likely to be incarcerated for violent offences (Abbott & McKenna, 2005; Abbott et al., 2005), a study by Turner et al. (2009) found that in a sample of incarcerated males, those with severe gambling problems were more likely to be incarcerated for income producing crimes with a majority reporting that their criminal activity was a result of their gambling (65.2% stated gambling was the cause of their offending). Turner et al. (2009) further found that problematic gambling was positively correlated with the number of convictions and sentences and was negatively correlated with being a first-time offender. Some research has suggested that a custodial sentence is associated with the increased likelihood of returning to prison (generally for technical violations of parole conditions) (Harding, Morenoff, Nguyen, & Bushway, 2017). Incarceration can mean that gambling problems remain untreated (Sakurai & Smith, 2003; Turner, Preston, Saunders, McAvoy, & Jain, 2009), potentially increasing the risk of reoffending upon release. Without receiving treatment when imprisoned, offenders are likely to be caught in a cycle of gambling, crime and debt, and pose an ongoing burden on the justice system and the wider community (Browne, Bellringer, et al., 2017; Walker et al., 2012). In fact, Ellis et al. (2018) found that therapists reported greater likelihood of treatment failure for those with a history of arrest and involvement with illegal gambling-related behaviour. Problem gambling prevalence amongst prison populations tends to be higher than in the general population (May-Chahal, Humphreys, Clifton, Francis, & Reith, 2017; Turner et al., 2009), meaning that even if a person has controlled their gambling, being incarcerated for criminal

behaviours may increase the chances of relapse when exposed to gambling within a prison environment.

Offences that occur after periods of gambling may be a symptom of a personality type prone to risk-taking behaviour, where gambling is symptomatic of a criminal lifestyle (Adolphe et al., 2019; Arthur et al., 2014; Binde, 2016; Crofts, 2003; Lind et al., 2015; Turner et al., 2009). However, criminally inclined gamblers may be the minority and often report less severe gambling problems (Lind et al., 2015; Turner et al., 2009). In a review of gambling-related court cases (n=300), Crofts (2003) reported that of the 36 cases that were found to have prior offences, 17 of these were gambling-related. Crofts (2003) concluded that gambling rather than any particular personality trait, was the motivation for the majority of the crimes reviewed. In New Zealand, crimes associated with gambling are most likely to be financially motivated (Bellringer et al., 2009; Dyall & Hand, 2003; Guttenbeil-Po'uhila et al., 2004; Rankine & Haigh, 2003; Sobrun-Maharaj et al., 2012; Watene et al., 2007). These types of crimes have some of the highest recidivism rates. For example, at 48-months follow-up, the re-imprisonment rate for theft and fraud was 67% and 43%, respectively, and for property offences (e.g., burglary, robbery etc.) the reconviction rate was 70% and re-imprisonment rate was 48% (Nadesu, 2008). While these figures are not necessarily for gambling-related crimes (McIntosh & Workman, 2017), it does suggest that the legal ramifications associated with these crimes are not enough to deter or reduce the likelihood of recidivism. In line with later findings by Binde (2016), Crofts (2003) suggested that the likelihood of reoffending reduced when control over gambling was achieved.

The life course and intergenerational effects of gambling-related crime can be significant. Involvement with the criminal justice system has been shown to be associated with harm to family and whānau members (McIntosh & Workman, 2017; Roguski & Chauvel, 2009), negatively affects children in the long term (e.g., increases risk for child antisocial behaviour, mental health problems, failing in school, offending, drug abuse) (Murray & Farrington, 2008), and can be linked with homelessness (Roguski & Chauvel, 2009). The potential for the pervasive and intergenerational effects of receiving a custodial sentence are made clear by McIntosh and Workman (2017):

One aspect of prison systems that appears to have been largely overlooked is the fact that the impact of incarceration is not purely limited to the individual who is imprisoned. Rather, there are collateral effects and consequences which spread from the individual outwards to whānau and community. There is also evidence to suggest that once set in motion, these reverberations can persist over time, increase in resonance, and then feedback upon themselves, generating long-lasting and potentially intergenerational effects (p. 733).

It is common for people who commit crimes and come into contact with the legal system to have emotional and psychological problems. The next section brings attention to the harms from gambling that are specifically emotional and/or psychological in nature.

Emotional and Psychological Harms

Gambling harm is associated with an array of negative emotions and psychological harm that can be difficult to resolve once gambling involvement ends. The shame and stigma associated

with harmful gambling tends to be reported as the most prevalent and damaging (Bellringer et al., 2009; Browne, Bellringer, et al., 2017; Carroll, Davidson, Marsh, & Rodgers, 2011; Carroll, Rodgers, Davidson, & Sims, 2013; Downs & Woolrych, 2010; Hing, Nuske, Gainsbury, & Russell, 2016; Holdsworth et al., 2013; Li et al., 2017). However, gambling problems can generate a range of other emotions such as embarrassment, anger, feelings of worthlessness, regret, denial, guilt, weakness, feeling stupid or foolish, and emotional distress (Bellringer et al., 2009; Carroll et al., 2011, 2013; Downs & Woolrych, 2010; Hing et al., 2016; Holdsworth et al., 2013; Korman et al., 2008; Li et al., 2017). Such emotions and psychological impacts are likely to continue as gamblers come to terms with the impact of their gambling and the extent of their gambling problems.

Felt stigma

Perceived or real stigma and the subsequent shame it can bring is experienced both by gamblers and affected others (Browne, Bellringer, et al., 2017; Li et al., 2017). Carroll et al. (2011, 2013) reported that treatment providers believed that the general public views gamblers as selfish and stupid, without fully understanding the complexities of harmful gambling, especially compared to other disorders that are associated with public sympathy; findings that are consistent with more recent research by Browne, Bellringer, et al. (2017) and Hing et al. (2016). For example, in interviews conducted by Hing et al. (2016), problem gamblers reported that the general public perceived problem gambling to be an inherent personal failing and viewed problem gamblers negatively (e.g., foolish, weak, untrustworthy, and irresponsible). Due to the perceived negative stigma surrounding problematic gambling, the label “problem gambler” raised fears of being negatively stereotyped, or experiencing rejection, hostility and devaluation from others (Hing et al., 2016). This could prevent people from seeking help or disclosing the details or extent of their problems for fear of being misunderstood or labelled by their problem (Carroll et al., 2011, 2013; Downs & Woolrych, 2010; Hing et al., 2016; Samuelsson et al., 2018; Suurvali, Cordingley, Hodgins, & Cunningham, 2009). If gambling urges or problems recur, a gambler may be reluctant to disclose this to family or treatment providers due to fear of judgment, or feelings of guilt or shame. They may also be reluctant to engage in harm minimisation techniques - such as self-exclusion - to avoid humiliation and being labelled as having a problem (Browne, Bellringer, et al., 2017; Browne et al., 2016; Hing et al., 2016).

Wellbeing

Feeling stigmatised, and the shame and regret associated with gambling, can have ongoing implications for emotional wellbeing. In the Browne, Bellringer, et al. (2017, p. 19) New Zealand study of gambling harm, common themes like “not being able to forgive oneself” or “still feeling ashamed” were identified. Hing et al. (2016) found that problem gamblers tended to internalise public stigma, which compounded personal perceptions of self, affecting self-worth, self-esteem and self-efficacy, as well as contributing to poor mental and physical health. These findings were supported in a subsequent study, which demonstrated that the anticipated public stigma was indicative of gamblers’ self-perceptions or self-stigma (Hing & Russell, 2017). Downs and Woolrych (2010) found that gamblers experienced ongoing emotional and psychological repercussions due to things they had done during periods of gambling. Those who were dishonest or engaged in untrustworthy behaviour, such as hiding their gambling from their loved ones, questioned their self-worth, which further contributed to

feelings of stress and worry and strengthened feelings of shame. These findings were replicated by Browne, Bellringer, et al. (2017) who found that gamblers had to learn to live with acts or decisions made that were outside their value system. Such feelings of regret, guilt and shame are likely to continue despite gambling abstinence, as ceasing gambling does not change past events. Similarly, ongoing worry and stress caused by the aftermath of gambling problems (e.g., increased debt or ongoing harm to relationships) can also exacerbate other harms, such as contributing to poor workplace performance (Downs & Woolrych, 2010). Feeling stigmatised and the subsequent negative emotions can escalate other problems by fostering poor perceptions of self-worth and increased emotional distress, which can have consequences such as physical harm due to lack of self-care, or increased gambling urges as a way to cope with the hardship and psychological stress (Browne, Bellringer, et al., 2017; Browne et al., 2016; Hing et al., 2016; Samuelsson et al., 2018).

Partner wellbeing

Partners of problematic gamblers have reported feeling embarrassed or ashamed of the gambler's behaviour, which can serve as a barrier to seeking support or disclosing problems (Browne, Bellringer, et al., 2017; Dickson-Swift et al., 2005). Subsequently, this negatively impacts social inclusion and connections for both the gambler and affected others, causing isolation from social networks - as people tend to hide their problems or themselves due to feelings of shame and fear of public stigma or rejection (Browne et al., 2016; Carroll et al., 2011, 2013; Hing et al., 2016). For affected others, the aftermath of discovering that a gambling problem exists, and the ensuing consequences, can be traumatic and result in significant ongoing harm to emotional and psychological wellbeing (Dickson-Swift et al., 2005; Salonen et al., 2016). Holdsworth et al. (2013) conducted interviews with partners of problem gamblers who reported experiencing severe emotional distress including anger, frustration, and resentment; findings replicated in later research by Browne, Bellringer, et al. (2017) and by Hing et al. (2020). Participants in Browne, Bellringer, et al.'s (2017) research also reported feeling insecure and vulnerable, and fear due to the uncertainty and instability that was brought into their lives by their partner's harmful gambling.

Partners of problematic gamblers have also reported feeling guilty or responsible that somehow they had contributed to the problem, either by causing the gambler to gamble, or not realising the problem existed sooner. This self-perceived 'responsibility' subsequently resulted in feeling foolish, stupid or like a failure (Dickson-Swift et al., 2005; Holdsworth et al., 2013; Li et al., 2017), with many partners questioning their self-identity and experiencing lowered self-esteem (Dickson-Swift et al., 2005; Hing et al., 2020). The guilt of failing to detect a problem sooner caused affected others to be hypervigilant, which further contributed to stress and harm to emotional wellbeing for both the affected other and the gambler (Browne, Bellringer, et al., 2017; Browne et al., 2016; Dickson-Swift et al., 2005; Hing et al., 2016; Holdsworth et al., 2013). For example, some respondents reported that feeling paranoid, distrustful or vigilant regarding their partner's whereabouts or spending made them not like the person they perceived themselves to be: *"I would go through his stuff to see if he was still gambling. I became the worst version of myself. I became someone who I hated."* (Holdsworth et al., 2013, p. 7). In other research, partners reported feeling depressed, paranoid, lost, fearful and ashamed for the consequences experienced by their children (Dickson-Swift et al., 2005), as well as responsible for monitoring the health and wellbeing of the gambler (Browne, Bellringer, et al., 2017). This, in turn, has implications for a gambler's emotional wellbeing, as

gamblers reported feeling devalued or inferior due to being watched and judged by others (Hing et al., 2016) or must live with the guilt and emotional turmoil of being the cause of harm to others (Browne, Bellringer, et al., 2017).

Effects on children

Children of problematic gamblers also report feeling shame resulting from their parents' gambling, and are likely to experience further shame and strain associated with external expectations, either to conform behaviourally or to fulfil parental roles and duties; this has the potential to contribute to social isolation and emotional strain (Darbyshire et al., 2001; Wurtzburg et al., 2011). For example, children often reported acting as a "friend" or "mediator" in helping parents solve their problems and/or relationship disputes, with parents relying on children for emotional support (Darbyshire et al., 2001; Wurtzburg et al., 2011). Other research suggests that parental emotions such as stress, guilt and other adverse moods can impact the emotional wellbeing of their children (Darbyshire et al., 2001). In interviews with high school students, Jacobs et al. (1989) found that children of problem gamblers reported an inferior ability to cope with stress and had poor social skills, suggesting that parental problematic gambling can significantly impact their child's social development and ability to cope with adversity. Furthermore, children of problem gamblers were also twice as likely as their classmates to acknowledge attempting to end their own lives. Adult children can also be affected by a parent's gambling problem. A qualitative study of 15 adult children affected by parental gambling concluded that the issues that arise from parental gambling problems can impose considerable stress on adult children and detract from their quality of life through disrupting their close relationships and usurping their time and energy (Patford, 2007).

Effects on minority populations

Some of New Zealand's minority populations have been found to consistently rate lower on measures of quality of life (Anderson et al., 2006; Ganglmair-Wooliscroft & Lawson, 2008; Ministry of Social Development, 2016; Sibley & Liu, 2004), with problem gambling a significantly predictor of poor quality of life and mental wellbeing (Bellringer et al., 2013; Browne, Bellringer, et al., 2017; Dyllal, 2004; 2012; Guttenbeil-Po'uuhila et al., 2004; Lin, Casswell, & You, 2008; Perese & Faleafa, 2000; Rankine & Haigh, 2003; Sobrun-Maharaj et al., 2012; Walker et al., 2012). The level of gambling involvement has been linked with feelings about self, quality of life and life satisfaction, and perceptions of parental competence (Lin et al., 2011; Lin et al., 2008). Often gambling is used as a means to escape or to cope with challenging situations or trauma (Dyllal & Hand, 2003; Lin et al., 2011; Rankine & Haigh, 2003). Additionally, methods of coping and patterns of behaviour are often learnt and passed down from one generation to the next (Dyllal, 2012), posing significant intergenerational impacts for dealing with hardship.

The wider and intergenerational impact of gambling on quality of life for Māori is clearly described by Dyllal (2012), who suggested that the emotional toll of gambling (e.g., shame, loss of trust and respect and whakamā⁸) affects everyone in a family and whānau, which can

⁸ Shame, embarrassment.

spread through communities, and impact on hapū⁹ and iwi¹⁰ (Dyall, 2012, p. 42). These findings have been mirrored in studies of Pacific and Asian populations, where gambling is reported to have negative impacts on wellbeing, while compromising family/community cohesion (Bellringer et al., 2013; Guttenbeil-Po'uhila et al., 2004; Kolandai-Matchett et al., 2017; Lin et al., 2008; 2011; Ngai, Latimer, & Cheung, 2001; Perese & Faleafa, 2000).

For people in some populations, such as Pacific communities, gambling can be positive for the psyche; for example, by fostering social connections that promote positive feelings about self, which contributes to a positive form of collective wellbeing (Lin et al., 2008). This could be partly because of the use of gambling (e.g., bingo and raffles) to raise funds for communal purposes or for the church. However, more commonly, consistent with research with other populations, problematic gambling amongst Pacific people fosters shame, stigma, damage to self-esteem, and increased stress (Li & Li, 2008; Sobrun-Maharaj et al., 2013; Tse & Liew, 2004; Wong & Tse, 2003), which negatively affects other harm domains (e.g., employment, relationships, education) within groups who already experience substantial disadvantage. For Asian groups, satisfaction with life and mental wellbeing has predominantly centred on the ability to settle into a community or country and, if negatively affected by gambling, could contribute to social isolation and stress (Sobrun-Maharaj et al., 2012; Tse & Liew, 2004; Wong & Tse, 2003).

Emotional barriers to recovery

Ongoing emotional struggles also make it difficult for recovered problem gamblers to abstain from gambling (Daughters et al., 2005; Lind et al., 2015; Oakes, Pols, & Lawn, 2019). Many people view gambling as a way to distract and escape from the stress of life (Li et al., 2017; Lind et al., 2015). Those who are experiencing the ongoing consequences of their gambling (e.g., relationship or financial difficulty) and are struggling to cope with the negative emotions associated with being cast as a “gambling addict” may be more vulnerable to relapse, using gambling as a means to escape adverse moods (Lind et al., 2015). Oakes et al. (2019) described the cycle of relapse as a “merry-go-round”, where gamblers attempt to avoid negative emotions resulting from their behaviour by re-engaging in the same behaviour. Once on this “merry-go-round”, the relapse phase becomes a habitual way of coping with the overwhelming despair felt when faced with the reality of their situation. The fantasy of winning provided gamblers with hope and temporary relief; however, when the gambling stopped, they were again faced with the grim reality of their problems. At this point, the main choices are to seek help, contemplate a quick way out (e.g., suicide), or return to gambling (Oakes et al., 2019). With each relapse, the negative perception of one's self worsens, the feelings of guilt and shame get stronger, and cause self-loathing, making it more difficult to disclose problems; deepening the level of despair (Hing et al., 2016). These findings have been echoed in research with New Zealand populations; for example, researchers have demonstrated that

⁹ Kinship group, clan, tribe, subtribe - section of a large kinship group and the primary political unit in traditional Māori society. It consists of a number of whānau sharing descent from a common ancestor, usually being named after the ancestor, but sometimes from an important event in the group's history. A number of related hapū usually share adjacent territories forming a looser tribal federation (iwi).

¹⁰ Extended kinship group, tribe, nation, people, nationality, race - often refers to a large group of people descended from a common ancestor and associated with a distinct territory.

Māori and Pacific people consider gambling a sign of hope to financially improve their lives (Dyall et al., 2009; Lin et al., 2010; Urale et al., 2015). When gambling fails to provide the expected financial return, disappointment is experienced (Palmer, 2014), which motivates further gambling participation in an effort to renew hope.

Harms related to emotional and psychological wellbeing can lead people to engage in behaviours and lifestyle choices that harm their physical and mental health. In some cases, people harmed by gambling suffer from diagnosable health problems, which is the topic of the next section.

Harm to Physical and Mental Health

There are multiple studies that have linked problematic gambling with decrements to physical health (Binde, 2016; Black, Shaw, McCormick, & Allen, 2013; Browne, Bellringer, et al., 2017; Browne et al., 2016; Hing et al., 2016; Lorenz & Yaffee, 1986; Mason & Arnold, 2007) and coexisting issues such as mental health conditions and alcohol or substance use disorders (Afifi et al., 2010; Hodgins, Peden, & Cassidy, 2005; Holdsworth et al., 2012, 2013; Kessler et al., 2008; Lorains, Cowlshaw, & Thomas, 2011; Mason & Arnold, 2007; Najavits, Meyer, Johnson, & Korn, 2011; Petry, Stinson, & Grant, 2005). These findings have been supported by recent New Zealand national health surveys (Mason, 2006, 2009) and national gambling studies (Abbott, Bellringer, Garrett, & Mundy-McPherson, 2014; Abbott, Bellringer, Garrett, & Mundy-McPherson, 2014; Abbott, Bellringer, Garrett, & Others, 2018). Poor health outcomes (e.g., obesity, high blood pressure, diabetes, stomach or circulatory issues) and poor health behaviours (e.g., sedentary lifestyle, overeating, poor sleep, and failure to access preventative medical services or seek medical care) have been found to be associated with problematic gambling (Abbott, 2001a; Abbott & Volberg, 1992; Binde, 2016; Black et al., 2013; Browne et al., 2016; Hing et al., 2016; Li et al., 2017; Lorenz & Yaffee, 1986; Mason & Arnold, 2007). Problem gamblers have also reported poor health, and high frequency of emergency department and hospital visits, and have a higher likelihood to take medication for mental health problems (Black et al., 2013; Li et al., 2017; Mason & Arnold, 2007).

Sedentary lifestyle

The extent and direction of the relationship between gambling and poor health is yet to be determined (Black et al., 2013; Lorenz & Yaffee, 1986). Gambling may be attractive to those who have poor health as it offers an entertaining activity that requires little physical exertion (Black et al., 2013). Alternatively, since gambling is largely a sedentary activity, it may be that over-consumption contributes to a sedentary lifestyle that involves behaviours associated with poor health conditions (e.g., extended periods of inactivity and irregular eating habits that contribute to obesity or diabetes) (Black et al., 2013). Health conditions associated with inactivity, such as obesity, can have ongoing effects on more severe conditions, such as arthritis, diabetes, hypertension, gastroesophageal reflux and sleep apnoea (Black et al., 2013). Humphreys, Nyman, and Ruseski (2011) suggested that only excessive gambling may be associated with health problems, since there was no association between poor health outcomes and gambling amongst recreational gamblers.

Compromised medical and self-care

There is evidence to suggest that physical health can be impacted as a direct result of the harm caused by gambling. Financial hardship from gambling can contribute to poor health conditions (e.g., gastrointestinal disorders, increased blood pressure, respiratory disorders, cardiovascular disorders) (Downs & Woolrych, 2010), and may cause people to compromise their standard of living (e.g., poor food choices, failing to seek medical insurance) (Browne et al., 2016; Downs & Woolrych, 2010; Langham et al., 2016), and refrain from accessing medical services, taking medications, or receiving preventative health care (Black et al., 2013). In a study of affected others, Dickson-Swift et al. (2005) described a man who underwent heart surgery and felt he had to ration his heart medication due to his wife's gambling. Other respondents described that because of the other person's gambling behaviour, they had to forgo medical treatment, preventative care and medication for their children (Dickson-Swift et al., 2005), which can have long-term health implications, potentially affecting other life domains such as educational attainment and social development. Failure to maintain health, either by compromised standards of living or failing to seek medical assistance or preventative care, is likely to result in the escalation of health problems, impacting quality of life and requiring more involved interventions or emergency treatments. This may contribute to financial strain and other long-term health impacts (Black et al., 2013; Browne, Bellringer, et al., 2017; Browne et al., 2016; Dickson-Swift et al., 2005; Langham et al., 2016). Ongoing health problems can also contribute to the stress and worry of affected others (Salonen et al., 2016), who may potentially have to provide care and assistance, or assume extra responsibilities, particularly if poor health status results in employment difficulties and earning an income (Browne, Bellringer, et al., 2017). Victims of gambling-related violence may also suffer physical or emotional injury that affects physical functionality, or causes mental health issues such as Post Traumatic Stress Disorder (PTSD) requiring potential long-term treatment (Korman et al., 2008).

Stress-related illness

Browne et al. (2016) suggested that frequent, regular cycles of gambling can cause biochemical changes similar to those experienced under high stress; such as increased cortisol, epinephrine or diastolic blood pressure that can contribute to poor health and long-term health complications. For example, in interviews with gamblers, one individual believed the stress caused by gambling contributed to a minor stroke (Browne et al., 2016), as stress and worry associated with gambling problems and gambling-related harm can lead to the experience of physical symptoms (e.g., insomnia, intestinal disorders, lethargy and fatigue, and weight gain) (Binde, 2016; Hing et al., 2016; Holdsworth et al., 2013; Lorenz & Yaffee, 1986). In Lorenz and Yaffee's (1986) study, gamblers reported experiencing a range of health problems after stopping gambling, such as headaches, insomnia, breathing difficulties, high blood pressure, stomach complaints (ulcers, loose or constipated bowels), back and neck pain, and skin rashes. The degree to which gambling directly contributed to these health issues is unclear. However, gambling harm is likely to make some contribution to physical symptoms; a phenomenon that is not isolated to gamblers as participants who reported greater health problems also reported other issues such as family disruption. Affected others reported similar issues with insomnia and headaches (Dickson-Swift et al., 2005), and stress-related symptoms such as trouble sleeping, stomach issues, breathing problems, backache, faintness, high blood pressure, lethargy and extreme exhaustion (Holdsworth et al., 2013;

Lorenz & Yaffee, 1988), which continued even if the relationship with the gambler had ended (Holdsworth et al., 2013).

Mental health

Gambling problems have consistently been shown to be associated with mental health conditions and substance use/abuse (Abbott, 2001a; Abbott & Volberg, 1992; Affi et al., 2010; Hodgins et al., 2005; Holdsworth et al., 2012, 2013; Kessler et al., 2008; Lorains et al., 2011; Mason, 2009; Mason & Arnold, 2007; Najavits et al., 2011; Petry et al., 2005; Wurtzburg et al., 2011), which can precede, follow, and be exacerbated by gambling (Holdsworth et al., 2013; Kessler et al., 2008; Najavits et al., 2011) as well as contributing to gambling harm. For example, Wurtzburg et al. (2011) found that parents believed their alcohol consumption encouraged them to gamble with more money. McCormick and colleagues (1984) cited by Battersby et al. (2006) found that in 86% of cases, depression followed gambling, suggesting that depression is more commonly a secondary condition, rather than a primary problem that occurs prior to gambling (Kim, Grant, Eckert, Faris, & Hartman, 2006). Other research has suggested that mental health symptomatology does not predict gambling symptomatology, nor does the severity of gambling problems predict severity of mental health conditions (Quilty, Watson, Robinson, Toneatto, & Bagby, 2011). This indicates there are other confounding factors that contribute to the escalation of concurrent gambling and mental health problems.

In support of Blaszczynski and Nower's (2002) pathways model and more recent research (Holdsworth et al., 2013; Kessler et al., 2008; Najavits et al., 2011), Hodgins et al. (2005) identified two subtypes of gamblers; those who gambled to modulate moods (mood disorder existed prior to gambling), and those who developed a mood disorder in response to gambling. Holdsworth et al. (2012), suggested that the degree to which gambling causes mental health issues is dependent on the individual and while gambling may not be the cause, it can prolong or exacerbate these conditions (Browne et al., 2016; Holdsworth et al., 2012; Najavits et al., 2011), making them more difficult to treat. For individuals who gambled to escape and have experienced harm as a result of their gambling, ongoing mental health issues are likely to continue (Najavits et al., 2011). Similarly, several studies have reported that substance use problems often co-occur with gambling problems (Carroll et al., 2011; Ledgerwood et al., 2005; Mason & Arnold, 2007; Penfold, Hatcher, Sullivan, & Collins, 2006b). Those who are abstinent from gambling or are dealing with someone else's gambling, may turn to other behaviours (e.g., alcohol, cigarettes, overeating) as a means of escape or self-medication, which ultimately contributes to the experience of other harm (e.g., financial stress and poor health, issues with work or study) (Dickson-Swift et al., 2005).

Health in minority populations

Similar to the general population, Māori (Dyall, 2003; Dyall et al., 2009; Levy, 2015; Watene et al., 2007), Pacific (Bellringer et al., 2013; Guttenbeil-Po'uhila et al., 2004; Perese & Faleafa, 2000) and Asian populations (Sobrun-Maharaj et al., 2013; Wong & Tse, 2003) experience impaired physical and mental health, and poor health behaviours as a result of their gambling. However, the extent of the harms experienced may be exacerbated for these populations. For example, researchers at the Centre for Social and Health Outcomes Research and Evaluation found that Māori who had higher levels of gambling participation, particularly with electronic gaming machines (EGMs), reported significantly worse physical health, mental wellbeing and self-esteem (Casswell et al., 2008; SHORE & Whariki, 2006) than their European

counterparts. For Pacific people, gambling can affect an individual's ability to contribute to church and community life, creating significant levels of stress and a strain on their mental health (Guttenbeil-Po'uhila et al., 2004; Perese & Faleafa, 2000). For Asian people, the impact of gambling on financial security, and increased isolation were the main factors affecting mental and physical health. Moreover, within Asian communities, 'face-saving' and the avoidance of shame has meant that seeking help outside the family is uncommon (Sobrun-Maharaj et al., 2013, 2012; Wong & Tse, 2003), meaning that the experience of harms relating to gambling may be prolonged.

Suicide

Mental health conditions and substance use/abuse have been associated with severe harm such as suicidality and suicide attempts (Battersby et al., 2006; Bellringer et al., 2013; Ledgerwood et al., 2005; Penfold, Hatcher, Sullivan, & Collins, 2006a; Penfold et al., 2006b), family violence (Afifi et al., 2010; Palmer du Preez et al., 2018; Salonen et al., 2016), and relationship breakdown (Bellringer et al., 2013; Guttenbeil-Po'uhila et al., 2004; Kolandai-Matchett et al., 2017; Sobrun-Maharaj et al., 2013), which in turn can affect physical health and wellbeing, and have greater implications for life course and intergenerational harm (Browne, Bellringer, et al., 2017; Langham et al., 2016). In a study of hospital admissions for attempted suicide, Penfold et al. (2006a) found that 1 in 6 suicide attempters reported having a gambling problem, with 58% of these reporting a history of psychiatric problems. Ledgerwood et al. (2005) found that problematic gamblers who attempted suicide were more likely to report having received treatment for coexisting disorders, and less likely to have received assistance for their gambling problem. Since the experience of mental health conditions and substance use/abuse can be long-term and potentially escalate as the full impact of gambling harm is realised, it is possible that they will continue even in gambling abstinence, and this may contribute to despair. Ledgerwood et al. (2005) also found that attempted suicide was associated with a family history of alcoholism and drug use, and suicidality was associated with a family history of drug use and gambling problems. Their findings highlighted intergenerational impacts due to environmental and genetic factors that may predispose children of gamblers to experience future similar problems with gambling, substance use/abuse and suicide.

With hardship and additional responsibilities experienced by children of problematic gamblers, nutrition, comfort and general wellbeing may be overlooked. Neglect of basic human needs and increased stress from the pressure to cope with parental gambling may result in poor child health outcomes that have negative consequences on school performance and emotional wellbeing (Darbyshire et al., 2001; Wurtzburg et al., 2011). Research by Jacobs et al. (1989) suggested that children of problem gamblers are more likely to engage in unhealthy behaviours such as substance use (tobacco, drugs and alcohol) and overeating. These types of behaviours can have implications for future health, such as obesity, cardiovascular issues or respiratory problems. Prospective research has suggested that exposure to childhood adversity (e.g., financial difficulties, interpersonal conflict or family illness) can predict poorer health outcomes such as cardiovascular disease in later life, particularly for females (Korkeila et al., 2010). Stress and conflict within the family home can also contribute to the development of maladaptive coping strategies as a means to escape (Jacobs et al., 1989). Research with children in Māori communities has shown that while children were included in some gambling activities with their community or family and whānau, parental gambling could contribute to

transitions to gambling as a form of escapism (Dyall et al., 2009). As these children get older, the risk of developing gambling problems increases, as they have already developed a dependence on gambling as a relief from life's stressors.

Many physical and mental health issues are more prevalent in specific communities. Moreover, gambling harm can more generally manifest in unique ways within different cultural contexts. Gambling can also interfere with people's ability to fulfill cultural obligations. These so-called cultural harms are explored in the next, and last, subsection.

Cultural Harms

There is a scarcity of literature that explores cultural harms from gambling. A New Zealand study conducted by Browne, Bellringer, et al. (2017) identified some gambling harms on culture, including: withdrawal from cultural events and practices, shame due to changes in cultural roles and expectations, loss of contribution or connection to the community or involvement in cultural practices, and intergenerational consequences of reduced connection to the community; harms that are believed to be largely interrelated to family and relationship harms (Langham et al., 2016). When considered in terms of specific populations, it is easier to identify the potential impact gambling may have on cultural identity, cultural connection and cultural transmission.

Māori

Prior to European settlement, Māori had no real history of gambling (Dyall & Hand, 2003; Dyall, 2004). Gambling products are now widely available and have been described as "cultural baggage" (Grant, 1994, pp. 15–56); with many believing *"gambling is hereditary, it's intergenerational, a learned behaviour, and has become a part of who we are as a culture"* (Watene et al., 2007, p. 27). Gambling (and other behaviours such as alcohol and tobacco) limit the economic (e.g., economic security and successful involvement in wealth creation), social (e.g., strengthened whānau self-management and connections), and cultural (e.g., enhanced Māori identity, confident participation in Te Ao Māori¹¹) development of tāngata whenua¹² in New Zealand (Dyall & Hand, 2003; Dyall, 2010; Dyall et al., 2009; Levy, 2015).

A secure cultural identity has been identified as crucial for the overall health and wellbeing of Māori (Durie, 2003; Levy, 2015). The nurturing of individuals and building strong and resilient whānau by providing guidance, encouragement and focusing on relationships is important for the development of Māori communities and culture (Durie, 2006). However, gambling harm negatively affects individuals, damages relationships with others, and negatively affects whānau, community, and ability to contribute towards Māori culture.

The significant impact of gambling on Māori and Māori culture have led to a claim to the Waitangi Tribunal (Dyall, Hawke, Herd, & Nahi, 2012) and a Private Members Bill being

¹¹ The Māori world which includes three important areas: (1) Te Reo Māori (Māori language); (2) Tikanga Māori (protocols and customs); and (3) Te Tiriti o Waitangi (the Treaty of Waitangi).

¹² People of the land.

proposed (Rankine & Haigh, 2003) to enable legal empowerment of communities to remove EGMs from their communities and for the funds (i.e., taxes) from EGMs to remain within the community (Dyall, 2012). The Gambling (Gambling Harm Reduction) Amendment Bill was passed in 2013 as an amendment to the Gambling Act 2003. Despite this, researchers have reported that a “perverse cycle” has been created whereby the reliance on funding from gambling profits requires gambling participation (Levy, 2015, p.122). The cycle refers to the rationalisation of the harmful consequences of gambling as being mitigated by the funding opportunities, harm minimisation principles, and community work conducted (Adams & Rossen, 2012; Levy, 2015). However, reliance on gambling profits conflicts with tino rangatiratanga¹³ and it remains that Māori are disproportionately harmed by gambling, either through their own gambling or someone else’s. This has implications for cultural harms when gambling affects an individual’s/whānau’s ability to contribute to community activities (Herd, 2018; Levy, 2015; Rankine & Haigh, 2003), community/marae funds are misused or stolen (Bellringer et al., 2009), or family items which hold cultural significance are sold to pay back loans or continue gambling (SHORE & Whariki, 2006).

Māori cultural symbols and practices have been used in gambling advertising and venues to promote gambling as a fun and safe activity. Dyall, Tse and Kingi (2009) detailed the large Māori carvings placed within venues to symbolise welcome and protection, and the invitation of kaumātua (Māori elders) to the opening ceremonies of casinos in the 1990s. In advertising, Māori symbols such as the TikiTiki (good luck charm) on EGMs have been reported to enhance personification of a machine and facilitate the feeling of being welcomed and connected with Māori culture (Morrison & Boulton, 2013). The appropriation and utilisation of these symbols and cultural and spiritual practices have legitimised and enhanced the perception of safety, and encouraged gambling among Māori, thus, undermining and harming Māori culture (Dyall et al., 2009; Morrison & Boulton, 2013).

The cultural harms experienced by Māori include the loss of heritage through the sale or pawning of items or resources, and the erosion of relationships and social capital (SHORE & Whariki, 2006). Māori knowledge and culture has been passed on from generation to generation through carvings, weaving, story-telling and whakapapa (reciting genealogies), as well as through waiata (song), dance and kapa haka (traditional performance). However, legacy and intergenerational cultural harms occur as cultural heritage, socialisation and the transfer of indigenous knowledge is lost for children and young people when their parents, family members and elders spend significant time away from the home, gambling (Dyall, 2010). Further, the unique effects of gambling for Māori include the destruction of family values and social and cultural capital, emotional harm to an individual’s wairua¹⁴ and identity, the experience of whakamā¹⁵, and damage to mana, and mauri¹⁶ (Dyall, 2007; Dyall & Hand,

¹³ Self-determination, sovereignty, autonomy.

¹⁴ Spirituality.

¹⁵ Shame, embarrassment.

¹⁶ Source of emotions - the essential quality and vitality of a being or entity.

2003; ; Dyall et al., 2009; Levy, 2015; Rankine & Haigh, 2003; SHORE & Whariki, 2006). Indeed, Dyall (2003, p. 123) reported:

Problem gambling significantly affects the wellbeing and social capital of Māori whānau, hapū, iwi and local communities as their valuable resources such as human time and financial resources are expended on gambling. Gambling destroys social capital by weakening family relationships, destroying trust and increasing crime in communities. At the same time, Māori organisations and communities are dependent on gambling for developing and operating essential social, sport and cultural services.

Researchers have suggested that gambling has become a method of dealing with the ongoing effects of colonisation (i.e., loss of cultural identity) as a means of escape or coping with trauma. For many Māori, the destructive nature of gambling harms have eroded family relationships and encouraged individuals to depend on “luck” rather than tāngata whenua values and self-determination (Dyall, 2003; 2010). Additionally, problematic gambling deprives whānau of time and resources, subsequently limiting potential financial opportunities and hindering Māori economic, social, and cultural development (Levy, 2015). Thus, core cultural values such as whānau, whanaungatanga and koha, and the ability to maintain cultural heritage are eroded over time and through generations (Watene et al., 2007).

Pacific peoples

In Pacific communities, cultural concepts have both encouraged gambling activities and are negatively impacted by them (Bellringer et al., 2013; Guttenbeil-Po’uhila et al., 2004; Kolandai-Matchett et al., 2017; Rankine & Haigh, 2003; SHORE & Whariki, 2006). For example, Guttenbeil-Po’uhila and Tu’itahi (2007) explained that concepts such as fua fatongiá (carrying out one’s rightful duties), fua kavenga (shouldering social and financial burdens), and feingá (trying one’s very best) both support gambling and are negatively impacted by problematic levels of gambling. These concepts support gambling activities as a means of raising money for the community (e.g., bingo events) or inadvertently place pressure on families to increase investment into gambling, which ironically contributes to them being unable to meet cultural obligations.

Another key cultural concept is gift-giving (e.g., fa’alavelave among Samoans and fetokoni’aki among Tongans), which is a cultural practice that defines the Pacific way of living. Traditional gift-giving includes church tithing and contributions at major events such as weddings or funerals. Emphasis is placed on generosity and reciprocity, reinforcing family relationships and connections with extended family members, friends, and church and community members. The continuation of cultural obligations and maintaining a strong sense of family is a way for Pacific communities in New Zealand to preserve a connection with family and village members in the Pacific Islands, as well as a way of expressing cultural identity, sustaining culture-based social support, and enhancing self-esteem and mental wellbeing (Bathgate & Pulotu-Endemann, 1997; Cowley et al., 2004; Perese et al., 2011). The inadvertent pressure to contribute has meant some individuals have used gambling to attempt to increase funds, resulting in financial insecurity, shame, and estrangement from family (Guttenbeil-Po’uhila et al., 2004; Perese et al., 2011; Perese & Faleafa, 2000).

The authority and status of elders in Pacific communities could act as a protective factor against problematic gambling. However, in New Zealand, the culture has become more

individualistic than in the collective culture of the Pacific Islands. Thus, Bellringer et al. (2013) reported that the authority of elders appeared to have lessened and may be disregarded by younger generations. For example, if gambling were forbidden by an elder in a Pacific Island, the younger generation would obey or face serious consequences; however, in New Zealand, the younger generation may not comply (Bellringer et al., 2013).

Cultural harms are evident when obligations to family and community are not met due to gambling (Bellringer et al., 2013; Guttenbeil-Po'uhila et al., 2004; Kolandai-Matchett et al., 2017; Perese & Faleafa, 2000); this may be because of the time spent away from the family or community, the money spent/lost while gambling, or other harms. Perese and Faleafa (2000) explained that where cultural obligations have motivated gambling (e.g., gambling for funds, fundraising at church) "*a Samoan person would have a stronger leaning towards fulfilling his/her tautau or fa'alavelave first, than paying other bills (such as phone, power, groceries etc), as there is no shame in not paying other bills*" (p. 60). When obligations are unable to be met the '*worst social sin of fakama*¹⁷' is committed (Guttenbeil-Po'uhila et al., 2004). Indeed, Guttenbeil-Po'uhila et al. (2004) explained that "*for a people that operate at a communal level, fakama affects all aspects of health for people who are affected by it, physically, mentally and spiritually*" (p. 106). Thus, as previously explained, the pressure to contribute to community obligations can create a negative gambling cycle of gambling to attempt to increase funds, resulting in stress and an inability to contribute, further motivating gambling to recoup losses.

Asian peoples

Cultural security is important for self-esteem and resilience, particularly for migrants. Acculturation, settlement and integration, and social isolation are issues faced by Asian individuals and families who have moved to New Zealand. These issues impact on mental health, contribute to gambling problems, and exacerbate the experience of harms (Sobrun-Maharaj et al., 2012). In general, gambling harms to Asian families and communities has included family conflict, loss of employment and educational opportunities, physical and mental wellbeing issues such as stress and stress-related illness, material and monetary loss within the community, and deterioration of trust and social support mechanisms in the community (Sobrun-Maharaj et al., 2012).

Within Asian communities, seeking help outside the family is uncommon due to the cultural 'face-saving' concept and the avoidance of shame. Additionally, with unfamiliarity of appropriate services, seeking help may also be delayed (Radermacher, Dickins, Anderson, & Feldman, 2017; Sobrun-Maharaj et al., 2012; Wong & Tse, 2003). A disconnection or sense of alienation from the community is fostered by problematic gambling, which contributes to a gambling cycle and the avoidance of support (Wong & Tse, 2003). The delay in seeking help may also exacerbate the experience of harm or extend the period in which it is experienced.

Similar to the use of Māori symbols in advertising and at gambling venues, Asian symbols have been used to advertise gambling products (Dyall et al., 2009; Fam & Waller, 2003). For example, the image of a dancing dragon in advertising used to coincide with the Chinese New

¹⁷ Shame, loss of face, embarrassment and humiliation.

Year festival (Dyall et al., 2009); a marketing technique that has been reported as offensive due to both the cultural appropriation and the negative social and health effects of addictive products for the Asian population (Fam & Waller, 2003).

Discussion

The purpose of this chapter was to discuss the potential legacy of gambling-related harm for gamblers and their families, while emphasising the unique experiences of New Zealand's main ethnic populations. Despite a significant focus on general and crisis level harms in the gambling literature, this chapter demonstrates that gambling-related harm does not end once a person abstains or reduces gambling, and can have significant ongoing consequences across a broad range of life domains. The ongoing impacts of harmful gambling and subsequent effects on life course and intergenerational harms warrant further attention.

Public health approaches to gambling provide context to the impacts of gambling, as they move beyond the individual person and offer tangible comparisons that anchor gambling harm amongst other leading health issues accepted to be detrimental to health and wellbeing (Browne, Bellringer, et al., 2017; Browne, Goodwin, & Rockloff, 2018; Browne et al., 2016; Browne, Greer, Rawat, & Rockloff, 2017; Kohler, 2014; Langham et al., 2016; Rawat et al., 2018; Walker et al., 2012). For example, Browne, Greer, et al. (2017) studied the years of life lost due to disability - in this case gambling - using a burden of disease approach that mapped quality of life impact associated with specific health disorders. The total annual years of life lost due to disability cost for gambling was similar to that of major depressive disorder and alcohol use and dependence, which are both well recognised as major public health concerns. Such research highlights the breadth of gambling harm, demonstrating that gambling has broad and complex consequences. Comorbid disorders and other harms such as financial struggles and relationship conflict are often prioritised in treatment efforts meaning that gambling may be overlooked and go untreated (Carroll et al., 2011; Kessler et al., 2008). When gamblers are faced with the reality of the consequences of their gambling, problems are often at crisis level, increasing the chances of future relapse (Ledgerwood et al., 2005; Oakes et al., 2019), and requiring more resources for recovery (e.g., mental health specialists, financial counsellors, rehabilitation services, medical professionals). This places a significant burden on the health system and gamblers' families.

Life course and intergenerational harm can represent a category of harm within each harm domain (e.g., the legacy of financial harm experienced by subsequent generations resulting from gambling debt); or as a separate, unique outcome that occurs as a result of the accumulation of a range of harms across harm domains (e.g., the ongoing experience of financial hardship due to the impacts of impaired physical health on the ability to hold a job, maintain relationships and receive ongoing social support) (Langham et al., 2016). The collective negative impact of these harms can generate further harms, that significantly affect a person's life trajectory, or transcend beyond their life by affecting their children, other generations or having consequences for their community (Browne et al., 2016). While the intergenerational and life course impacts associated with gambling have been mentioned throughout this review, the impacts of gambling on future generations is limited and requires further attention.

Research on the intergenerational effects of gambling harm reports issues such as the reduction of family estates and parental involvement influencing future parenting styles, which have ongoing implications not only for the children of gamblers, but potentially also future generations (Browne et al., 2016). Additionally, children of problem gamblers are more likely to develop gambling problems and other maladaptive behaviours (Darbyshire et al., 2001; Dowling, Jackson, Thomas, & Frydenberg, 2010; Hawley et al., 2007; Najavits et al., 2011; Wurtzburg et al., 2011). One Australian study suggested that children with a family history of problem gambling were 2.3 times more likely to develop a gambling problem later in life (Dowling et al., 2010). Interviews with parents found problematic gamblers recalled their own parents gambling intensely during their childhood (Wurtzburg et al., 2011). In interviews with children of gamblers, a strong feeling of loss has been reported, both physically and existentially, through harm caused to relationships, and feelings of insecurity and instability (Darbyshire et al., 2001). Regardless of whether the transference of gambling behaviour across generations is genetic or environmental (Kalischuk, Nowatzki, Cardwell, Klein, & Solowoniuk, 2006), as a child develops, the consequences experienced due to parental gambling are likely to increase the risk of their own harmful gambling behaviour in the future. Dyall (2007) proposed that the wellbeing of children and young people should be central to any public health approach aimed at reducing harmful gambling, with the intention that intergenerational harms are minimised and the next generation is able to live within healthy and thriving communities.

Identifying, categorising and delineating the legacy effects of gambling harms will be challenging. First, how do we capture and measure harms that occur as a result of the accumulation of other harms? Second, how do we identify causation, as legacy gambling harms could be exacerbated by unrelated issues or only partly contributed to by the consequences of prior periods of gambling. Third, how do we measure and capture intergenerational harm that can span multiple generations, infiltrating broader family networks and interacting with other life events to dictate life course trajectories?

There are also cohort effects and population-based characteristics that should be considered when conceptualising the experience of legacy harms and the likelihood of intergenerational impacts. For example, as mentioned earlier in the financial and educational harms sections, a person's age can contribute to the severity and types of harms experienced. Young adults are less likely to have established themselves in the workforce, be married, have accumulated assets, have children or suffer health conditions associated with older age (Fong, 2005). Conversely, older cohorts of gamblers may have "more to lose." Hawley et al. (2007) found that amongst treatment seeking gamblers, those in the age category of 54-64 years were the least likely to be employed. It may be that following a job loss it is more difficult to re-enter and remain competitive in the workforce, forcing early retirement. Younger adults may find it easier to find work and maintain employment following job loss. Disadvantaged populations are also likely to experience inequitable harms from gambling compared to more advantaged populations. People from low socioeconomic backgrounds, migrants, Māori, Pacific people and Asian people, are unlikely to have the same resources to cope with the consequences of gambling harms and, thus, may disproportionately experience the long-term effects.

This chapter summarised some of the existing research that reflects on the legacy harms that result from intensive gambling. Beyond a simple enumeration of such harms, it is important to better quantify their effects to capture the full picture on the negative effects of gambling on

people's wellbeing. It is important to know what effects are most long lasting and debilitating. To advance an understanding of gambling as a public health issue, there is a need to understand how legacy effects of gambling contribute to the overall burden of harm in the community. Most approaches based on a model of gambling problems as a mental health issue necessarily make a simplifying assumption that gambling harm is eliminated once a patient is "cured" of his or her mental illness. A broader understanding of harm, however, recognises that harms occur to people who do not have a mental health issue. This includes the legacy of harms that accrue to gamblers, their families and the community when current gambling behaviour is no longer a direct contributor to harmful experiences.

Chapter 2: Online Survey Study

The purpose of this present survey and analysis, described in more detail below, was to examine the time course of gambling harm after a discrete episode of problematic gambling is largely resolved. This includes the legacy harms that affect gamblers as well as CSOs. These legacy harms may be a product from all levels of gambling problems, including low-risk, moderate risk and problem gambling (Ferris & Wynne, 2001), which are hereafter collectively termed “problematic gambling.” It is a testable question whether people identify harms that continue after their problematic gambling had largely ended. Furthermore, it is testable whether remaining gambling harms after this period follow a predictable pattern of decay. That is, our assumption is that people will endorse fewer continuing gambling harms with a greater distance in time from their past episodes of problematic gambling. Moreover, we expected that some gambling harms will decay/reduce more slowly than others. Gambling harm resulting from interference with work and study plans, for example, may resolve themselves quickly once gambling no longer occupies a large part of person’s time. Financial harms, in contrast, may be more long-lasting due to continuing debt. Ultimately, however, the longevity of individual legacy-harms after problematic gambling is largely resolved is an empirical question. Benefits of this analysis include that gambling counsellors and the public may be better able to predict the rate at which people’s lives will improve once they are free from problematic gambling. Furthermore, support programmes could develop in ways that target lingering problems that are likely to remain after a discrete episode of problematic gambling ends.

It is also important to understand the effects that gambling harms on people’s health and wellbeing. Gambling harm is problematic because it subtracts from people’s wellness, and this quantity can be measured with standard instruments such as the Six-Dimensional Health State Short Form (SF-6D) (Brazier, Roberts, & Deverill, 2002). Usefully, in terms of content, this instrument measures health and wellbeing without reference to gambling activities. Consequently, it serves as helpful convergent evidence that the harms people endorse are affecting their wellbeing and are not just incidental opportunity costs or insubstantial lingering effects of problematic gambling. Some harmful consequences of gambling have been dismissed as insubstantial (Delfabbro & King, 2019). For example, the harm of “Reduction of my savings” has been argued to be an opportunity cost rather than a true harmful consequence of gambling. Therefore, the addition of the SF-6D can address this critique by provide evidence on whether endorsed legacy harms are affecting health and wellbeing.

Hypotheses

To meet the analytic purpose of determining whether people endorse continuing harms, we examined the quantity and decay/reduction of gambling harms past the chosen end of the most recent episode of problematic gambling. Our testable hypotheses were that:

1. at least some harms would continue, and
2. continuing harms would likely decay/reduce (or no longer be chosen as occurring within the last 12 months) as a function of time distant from the last episode, and
3. there are some differences in the decay/reduction of legacy harms with respect to the domain of harm (financial, relationship, etc., Langham et al., 2016). That is, some

harms, such as financial, might resolve themselves more quickly (or slowly) than other harms, such as damaged relationships.

Methods

Participants

Recruitment was arranged by Qualtrics, a panel aggregator who sourced participants from multiple independent panels and screened-out duplicates as well as ineligible respondents based on the selection criteria. Compensation by panel providers to participants was made in the form of points that could be redeemed for small value prizes, gift cards or cash. Survey completions were gathered between April 8th, 2020 and May 23rd, 2020. Participants were recruited during the early months of the COVID-19 pandemic outbreak. Survey questions on *legacy* harms, as shown in Appendix A, referred to the timeframe of 2019 (and earlier) which helped to avoid complications of interpretation from these circumstances. Income questions referred to the year 2019 since some people's income in 2020 had been affected by the pandemic lockdowns. Inclusion criteria specified participants who were aged 18+, living in New Zealand, and answering "yes" to the question:

- 1) "Has there been a time in your life when your gambling caused issues in your life, no matter how minor?"

For simplicity, this set of respondents is identified below as "gamblers" even though some no longer gamble. Furthermore, we define "issues" as synonymous with problematic gambling throughout the chapter (i.e., low-risk, moderate risk and problem gambling, combined). Technically, we asked participants about their "issues" with gambling to avoid the stigma associated with gambling problems, since we assumed that people would be less likely to admit to the latter.

Additionally, New Zealand residents who were otherwise not classified as "gamblers," per above (i.e., having said "no" to question 1), were asked:

"Have you had a close relationship with a person whose gambling caused issues in your life, no matter how minor?"¹⁸ Respondents who answered "yes" to this question are identified below as Concerned Significant Others (CSOs).

A total of 5,421 potential respondents started the survey. Of those, 2,460 were screened out due to not meeting criteria: 1,999 for not being a gambler or CSO where gambling had caused issues in their life, 358 because they indicated that they did not consent to take part, 88 because indicated that they were not New Zealand residents, and 15 because their age was less than 18 years. A further 730 were removed due to failing an attention check (n = 701) or speeding through the survey (defined as completing the survey in under one-third the median completion time from the soft launch, n = 29). In addition, 71 respondents started the survey but had not completed it before the survey closed. Lastly, based on two rounds of data

¹⁸ Participants were additionally informed that "When we talk about a close relationship, we are referring to a personal relationship with someone that you care about and have had regular communication with."

cleaning, 120 individuals were removed due to poor quality data. Specifically, 78 were removed because they were duplicate responses (same IP and same or very similar demographics), 9 due to poor quality open-ended responses (e.g., keyboard mashing), 1 for providing an irrelevant response to an open-ended question, 25 for providing multiple responses that were contradictory, 6 for indicating a year of first gambling that was highly unlikely given their age, and 1 because their IP indicated that they were not in New Zealand¹⁹. Of the remaining eligible 2,040 respondents, 590 respondents started the survey but did not complete it within one week and were consequently classified as incomplete responses (completion rate = 69.0%), leaving a final sample of 1,450 complete responses. This final sample was in excess of the conservative estimate of the 1000 responses projected by Qualtrics as the maximum achievable.

Ethical Approval

The conduct of the study was reviewed and approved by CQUniversity's Human Research Ethics Committee (HREC # 22278) which operates in accordance with the National Statement on Ethical Conduct in Research published by the National Health and Medical Research Council of Australia. Participants were informed of their right to withdraw from the study prior to submission of anonymous survey responses, and as detailed below, only fully completed surveys were included in the analyses. The information sheet and consent forms are reproduced in Appendix A.

Survey Instruments

The survey instrument is reproduced in Appendix A. Scale variables for the analyses are discussed below.

Time Since Problematic Gambling Ceased

Participants were asked "In total, how many different times in your life did your gambling cause issues for you, no matter how minor?" Thereafter, participants were asked to provide approximate beginning and ending dates (year and month, if known) for each discrete episode where "gambling had caused you issues..." including when "most" of these issues started and ended.

The month and year when the most recent episode of problematic gambling ended was extracted and subtracted from the present survey dates (Apr 8 - May 23) to yield the length of elapsed time since the problematic gambling ended. This formed an instrumental variable for subsequent analyses. The median time since the most recent episode problematic gambling had ceased was 1.8 years (IQR 0.25, 9.1). Hereafter, time since the problematic gambling had ceased is referred to as '*time*.'

Problem Gambling Severity Index (PGSI)

The Problem Gambling Severity Index (PGSI, Ferris & Wynne, 2001) is a population screen for gambling problems (see Appendix A). It consists of 9 Likert items describing behaviours

¹⁹ We acknowledge that this participant could have used a VPN but excluded them nevertheless in an abundance of caution.

and outcomes associated with gambling problems occurring in the last 12 months. No accommodation to the screen was made for COVID19 restrictions since these only (potentially) affected 3 of the last 12 months. Items are scored by frequency from 0 = Never to 3 = Almost Always. Summary scores ranging from 0 to 27 classify gamblers into 4 groups: 0 non-problem, 1-2 low risk, 3-7 moderate risk, and 8+ problem gambling.

Gambling Harms

Participants completed an 83-item checklist of harms based on past NZ harms research (Browne et al., 2017) wherein they indicated the harms they experienced during the "...most recent time that gambling caused you some issues." The chosen dates for this most recent episode, identified as described above, were reflected to participants to ensure that they were referring to a mutually understood time. A checklist of gambling related harms was organised according to the categories of: Financial, Relationship, Emotional and Psychological, Health, Work and Study, and Other harms (inclusive of Cultural and Social Deviance) (see Langham et al., 2016). Harms were identified by both Gamblers and CSOs with only slight wording differences needed to indicate personal harm emanating from "your" or "his or her" gambling, respectively.

After checking-off the list of harms from this "most recent" past episode, participants were presented with a restricted list of only those harms that they had checked-off from their most recent episode of gambling issues. From this list, participants were given the following instructions:

"Some people continue to experience some issues from gambling, even after most of the gambling issues have stopped. Listed below are the issues you have checked-off from the most recent period where you experienced the most gambling issues.

Check off which of these same issues still affected you at SOMETIME WITHIN THE LAST 12 MONTHS due to gambling that has happened in the past."

Additionally, participants could enter their own list of "other" harms that they were currently experiencing, as defined by the last 12 months, due to gambling problems in the more distant past. Only a few other harms were reported (53 individual entries). Most of the reported "other" harms only provided more detail about the harms on the aforementioned checklist. Consequently, these other/additional legacy harms are not explicitly incorporated into the analyses that follow.

The number of harm-outcomes tested for was large (83) and endorsed instances of any one harm were sparse. Many harms were reported only rarely (e.g., attempted suicide). However, there was good justification for aggregation of these harms into the larger groupings of harm domain (financial, relationship, etc., Langham et al., 2016). Boyle et al. (2021) established that gambling harm at an individual level is a unidimensional construct. This result suggests that the likelihood of experiencing any one specific harm (e.g., relationship breakdown) is greater if other harms are also experienced (e.g., loss of job, domestic violence) which justifies combining harms into larger groupings for analysis as appropriate. Consequently, scores for the domains of harm; including Financial, Relationship, Emotional/psychological, Health, Work/study and Other; were computed by summing the number of harms endorsed within each domain.

SF-6D Health Utility Weights (HUW)

The SF-6D (Brazier et al., 2002) is calculated from SF12V2 Survey (J. Ware Jr, Kosinski, & Keller, 1996). The SF12V2 Health Survey is a short form version of Medical Outcomes Study 36-Item Short Form Health Survey (SF36, J. E. Ware Jr, 2000). The purpose of the SF-6D is to measure overall health and wellbeing according to a standard metric that can be interpreted as a health-state utility. Health state utilities are scaled from population representative samples to reflect values where 1 represents full mental and physical health and fractional numbers are relative percentage decrements to overall health and wellbeing. As examples, questions on the survey include how a person's health might limit their activities such as "climbing several flights of stairs," and mental-health questions such as "have you felt down-hearted and blue?" None of the questions on SF12V2 explicitly reference gambling activities. This feature aids in the SF-6D's use as an independent criterion variable for judging the impact of harms. Health state utilities are also a source of convergent evidence that reported harms are "harmful" in the sense that they can be associated with decrements to global mental and physical wellness.

Personal Wellbeing Index (PWI)

The Australian Unity Personal Wellbeing Index (PWI) is a national measure of life satisfaction for use in population studies (Cummins, Eckersley, Pallant, van Vugt, & Misajon, 2003). The Personal Wellbeing Index (PWI) is a subset of 7 Likert items that were summed to form a total score. Scale items ranged from 0 = not at all satisfied to 10 = completely satisfied, and scores were standardised according to instructions from the PWI manual (Australian Centre on Quality of Life, 2013). Items measure people's satisfaction with their standard of living, health, achievement, relationships, safety, community, and future security. Our literature search failed to uncover New Zealand equivalent norms for either HUW or PWI, although psychometric properties for PWI in New Zealand were found to be favourable when compared to other countries (Ganglmair-Wooliscroft & Lawson, 2008).

Analyses

As noted in the *Participants* section, the survey recorded 1450 valid entries. Of these responses, 210 had indicated that most of their gambling issues were ongoing within the last 12 months, and these participants were excluded due to our analytic focus on legacy harms; leaving 1240 cases available for analysis. From the remaining cases, 735 reported on legacy harms arising from their own prior gambling, and 505 reported on legacy harms due to the gambling of another (CSOs). Demographic details for these two sub-samples are presented in Table 1. Notably, there were substantially more female respondents who were identified as CSOs (62.6% female), although this may have resulted from the non-population representative sample of Qualtrics panel participants and/or methodological impositions where gamblers, as opposed to CSOs, were preferentially surveyed first. However, it is consistent with the over-representation of males among problem gamblers. It is also notable that a substantial proportion of CSOs identified as having at least some current gambling problems themselves (1+ PGSI score = 22.4%) despite not previously admitting to gambling causing "...issues for you, no matter how minor" within the last 12 months. However, some PGSI items are arguably also harms, and therefore it is not necessarily inconsistent to admit to these harms without having current gambling problems (e.g., PGSI item 8, "Has gambling caused you any health problems, including stress or anxiety?").

Table 1. Demographic profile of 1240^a case sample used for analyses

Variable	Gamblers (n = 735)		CSOs (n = 505)	
Age	42.4	SD = 15.6	40.9	SD = 16.7
Gender	42.7%	female	62.6%	female
Annual Household Income	\$78K-104K	Median	\$78K-104K	Median
Urban location	48.4%		46.9%	
Ethnicity	71.3%	European/Other	71.5%	European/Other
	14.1%	Māori	14.3%	Māori
	10.7%	Asian	10.3%	Asian
	3.8%	Pacific	4.0%	Pacific
Problem Gambling Severity Index (last 12 mo.)	34.1%	Non-prob.	77.6%	Non-prob.
	14.1%	Low risk	11.1%	Low risk
	20.5%	Mod. risk	6.7%	Mod. risk
	31.2%	Problem	4.6%	Problem

^a Of 1450 valid entries, 210 had indicated that most of their gambling issues were ongoing within the last 12 months, and these participants were excluded due to our analytic focus on legacy harms; leaving 1240 cases available for analysis.

Linear mixed effects modelling of harms

Spearman rank correlations were used in the analyses due to non-normality of some variables. For parametric tests, a criterion p of .01 was used with statistically significant parameters indicated by an asterisk (*).

Our modelling included estimates of the rate of decay or reduction in the probability of observing any one of the given specific 83 harms as a function of time²⁰ and harm domain (financial, relationship, etc., Langham et al., 2016). A generalised linear mixed effects model was used (GLME), with crossed random intercepts for harm and respondent, to accommodate the repeated measures of each of the harms within the participant. A logistic (binomial) link function was employed to estimate the probability of observing any given harm as a function of time, while considering the differences in the probabilities of reporting differing forms of harm. We expected that the decay/reduction in the likelihood of reporting a harm should decrease non-linearly. Therefore, we considered several transformations of time, including linear, logistic, and polynomial, as well as combinations of the above, while comparing the Bayesian Information Criteria (BIC) of the fitted model associated with each of the alternative representations. We found that a simple natural log transform of time provided the best level of model fit, and these models are reported below. Separate models were generated for each harm domain, and thus a separate time-domain slope was estimated for each domain. That is, we allowed for the possibility of a difference in both the base-rate and the rate-of-decay in legacy harms for financial, relationship, emotional/psychological harms, health, work/study and other miscellaneous harms.

Recovery in health and wellbeing after problems cease

Non-parametric correlations and summary statistics are used to summarise the changes in health and wellbeing measured using the SF-6D as a function of time and remaining gambling harms.

Legacy Harms as a proportion of total harm, Lifetime impacts, and Differential impacts by Ethnicity, Age and Gender

Results for subsequent analyses relied on summarising harms as mean values. Where appropriate, analyses included well-known inferential statistics such as Spearman rank-order correlation. The differential impacts of gambling harm by ethnicity, age and gender were explored using logistic regression, which provided odds-ratios for relative risk.

Results

Of the 735 gamblers, 318 (43.3%) reported no continuing gambling-harms occurring within the last 12 months. The remaining 417 reported a median of 3 harms (IQR 2, 7). Of the 505 CSOs, 214 (42.4%) reported no continuing harms within the last 12 months. The remaining 291 CSOs reported a median of 3 harms (IQR 3, 6) which is comparable to gamblers. These results met our first objective by documenting that most participants reported at least some gambling harms still occurred within the last 12-months even after a more distant episode where “most” of their gambling issues had ended. These residual harms experienced within the last 12 months are hereafter referred to as “legacy harms.”

²⁰ Recall that “time” is the interval since the last episode of presumed problematic gambling. Greater “times” equate to longer periods between the date of survey administration (Apr 8 - May 23, 2020) and the most recent past episode where people stopped experiencing “most” of their gambling issues.

Pattern of decay/reduction in legacy gambling harms

For gamblers, the number of legacy harms reported was associated with lower health utility weights (HUW), $r = -.19^*$. The number of legacy harms reported also decreased with time, $r = -.15^*$, and relatedly, HUW improved over time $r = .23^*$. CSOs also showed an association of lower HUW with a larger number of reported legacy harms, $r = -.19^*$. However, for CSOs, greater elapsed time since problems was not significantly associated with either HUW, $r = .03$, *ns.*, or the persistence of legacy harms $r = -.05$, *ns.* Accordingly, subsequent time-based analyses were conducted on gamblers only, and not the CSOs group.

Table 2 summarises the six GLME models for each of the harm domains. Similar rates of decay/reduction were observed for each of the domains (e.g., financial, relationship, etc.). The presence of harm significantly decreased for all domains, except for Work / Study harms which had low power due to the relative rarity of these harms (see constant fixed effects). These expected probabilities of time for these fitted models are illustrated in Figure 2. Note that apparent differences in slope between domains arise from the logistic link transformation. On the scale of the linear estimator, the slopes are equal, and the gradients are parallel. The coefficients and standard errors in Table 2, however, imply no significant differences in the relative rate of decay/reduction between domains, $t(1) = .817$, $p = .56$. That is, the degree of harm within each domain tended to decay at the same rate after most gambling issues had ceased. This finding fails to confirm our testable hypothesis #3 of observable differences in decay by domain.

Table 2. Summary of GLME models predicting probability of reporting harm within each domain as a function of time

<i>Link function: Binomial (logit)</i>						
<i>Dependent variable: p(harm)</i>						
	Financial	Relat. Emotional/ Psych.	Health	Work/ Stud.	Other	
Fixed effects B (SE)						
log(time + 1)	-0.862*	-0.962*	-0.969*	-0.779*	-0.797	-0.839*
	(0.092)	(0.149)	(0.126)	(0.167)	(0.342)	(0.323)
Constant	-2.953*	-3.966*	-2.882*	-5.544*	-9.046*	-8.535*
	(0.356)	(0.306)	(0.255)	(0.700)	(0.716)	(0.650)
Random effects SD						
Response ID ^a	1.584	2.481	2.189	3.222	6.246	5.790
Harm ID ^b	1.302	0.305	0.514	0.537	0.739	0.565
Observations	10,448	8,489	7,183	10,448	7,836	10,448
Log Likelihood	-2,128.137	-1,305.034	-1,603.562	-1,318.066	-533.358	-658.397
Akaike Inf. Crit.	4,264.275	2,618.067	3,215.125	2,644.133	1,074.716	1,324.795
Bayesian Inf. Crit.	4,293.291	2,646.253	3,242.643	2,673.149	1,102.582	1,353.811

Note: *p < .01, ^a The standard deviation of random intercepts across individuals, ^b The standard deviation of random intercepts across specific harms within each domain

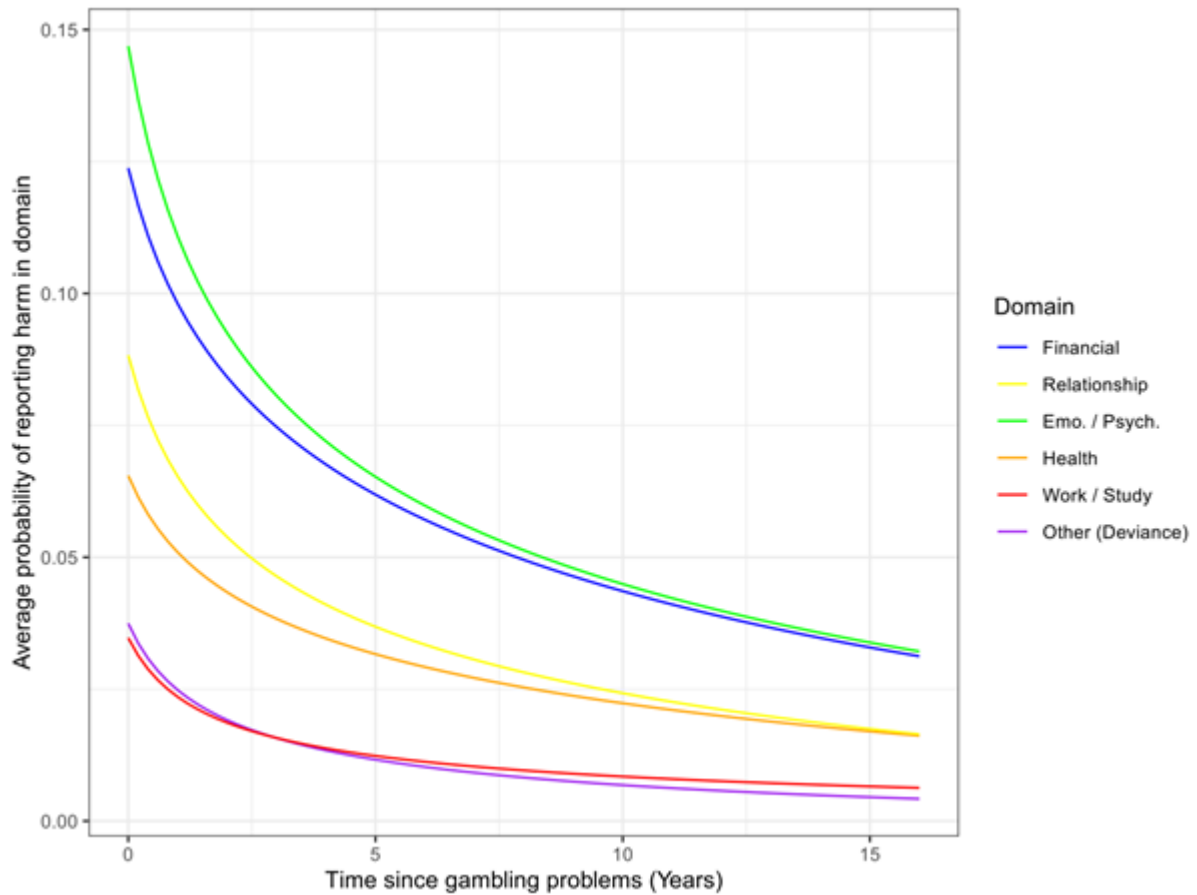


Figure 2. Average estimated probability of gamblers reporting harms within each domain as a function of time

Based on the logistic model, Table 3 shows the calculated half-life of a randomly selected legacy gambling harm by domain category. Half-life is calculated as the years elapsed from the most recent gambling issue at which point it is 50% probable that the harm remains. According to this model, on average for any randomly selected legacy harm once suffered, at 4 years distant from the most recent gambling issue it is 50% likely to remain. The probabilities for 75% likelihoods for a harm remaining and 25% likelihood for a harm remaining are also shown. As shown in Table 3, financial harms have the longest predicted half-life at 5 years, whereas “work/study” and “other” harms have shorter half-lives (at 2.4 and 2.2 years, respectively), indicating that these legacy harms are more likely to be relatively short-lived past the resolution of most of a person’s gambling problems.

Table 3. Half-life of legacy gambling harms

	Likelihood that a single harm, chosen at random, remains...		
	75%	50%	25%
Financial	1.4 yrs	5.0 yrs	16 yrs
Relationship	1.0	3.4	11.4
Emotional/Psych.	1.0	3.8	13.4
Health	1.2	4.6	15.8
Work/Study	0.6	2.4	9.6
Other	0.6	2.2	6.8
Average ²¹	1.1	4.0	13.5

Harms that are long- and short-lived

The calculated half-life of legacy harms, as detailed above, potentially obscure the details of what specific harms, rather than categories of harms, are particularly long (or short) lasting. Since there is a great amount of variability in the expression of individual legacy harms within persons, there is no strong expectation that long (or short) lasting specific harms should necessarily come from the categories of harm (i.e., financial, relationship, etc.) that decay/reduce slowly or quickly.

Figure 3 below shows the *mean number of years since the most recent gambling issue was largely resolved* for each legacy *financial harm* still suffered (within the last 12 months). Lower mean values indicate that most people reporting those harms are nearer to their most recent episode of gambling issues and thus, on average, people who are farther from the issues no longer have those harms. A one-sample t-test was calculated between each mean value and the overall means for the table. People who had legacy harms of “late on payments,” “required assistance from your community” and “needed temporary or emergency accommodation” were likely to indicate that their gambling issue was more recent. Other harms did not show a significant deviation from the overall mean value of recency for financial harms of 2 years 11 months. That is, for most people reporting a legacy financial harm, their gambling issue was 2 years and 11 months ago on average. These averages, however, should be interpreted with caution since they do not indicate typical experiences in terms of absolute expected length of

²¹ The average-calculation is weighted by the prevalence of harms in each category.

a legacy harm. For this information, instead refer to Table 3 for the half-life of legacy harms by category (e.g., financial, relationship).

Figure 4 shows the *mean number of years since the most recent gambling issue was largely resolved* for each legacy *relationship harm* still suffered (within the last 12 months). On average, people with legacy relationship harms were 2 years and 7 months distant from their most recent issues with gambling. People who reported the legacy harm of “neglected my whānau or family responsibilities” were significantly closer at 1 year 8 months, suggesting these harms resolve more quickly than other relationship harms.

Figure 5 shows the *mean number of years since the most recent gambling issue was largely resolved* for each legacy *emotional harm* still suffered (within the last 12 months). On average, people with legacy emotional harms were 2 years 8 months distant from their most recent gambling issue, and there were no identifiable emotional harms that resolved more quickly or slowly than others.

Figure 6 shows the *mean number of years since the most recent gambling issue was largely resolved* for each legacy *health-harm* still suffered (within the last 12 months). On average, people who reported legacy health harm(s) were 2 years 11 months distant from their most recent issues with gambling. People who reported that they “ate too much” due to their gambling were, on average, 4 years 7 months distant from their last issues with gambling, which was significantly greater than average. People who had legacy harms of “committed acts of self-harm” and “required emergency medical treatment for health issues caused or exacerbated by gambling” had gambling issues that were significantly more recent, at 1 year 3 months for both these legacy harms.

Figure 7 shows the *mean number of years since the most recent gambling issue was largely resolved* for each legacy *work/study harm* still suffered (within the last 12 months). On average, people reporting legacy work/study harm(s) were 2 years 9 months distant from their most recent issues with gambling, and there were no significant differences amongst means for individual work/study harms.

Figure 8 shows the *mean number of years since the most recent gambling issue was largely resolved* for each legacy *“other” harm* still suffered (within the last 12 months). On average, people reporting other harms were 2 years distant from their most recent issues with gambling. Legacy harms of “felt less connected to my church” and “felt that I had shamed my family name within my church” were reported by people who were significantly closer to their most recent gambling issues at 1 year 2 months and 6 months, respectively. People reporting legacy harms of “Outcast from church due to involvement with gambling,” “Outcast from community due to involvement with gambling” were only 7 months and 5 months, respectively, distant from their most recent gambling issue. Lastly, people who reported legacy harms of “had experiences with violence (include family/domestic violence)” were only 11 months distant on average from their most recent issues with gambling.

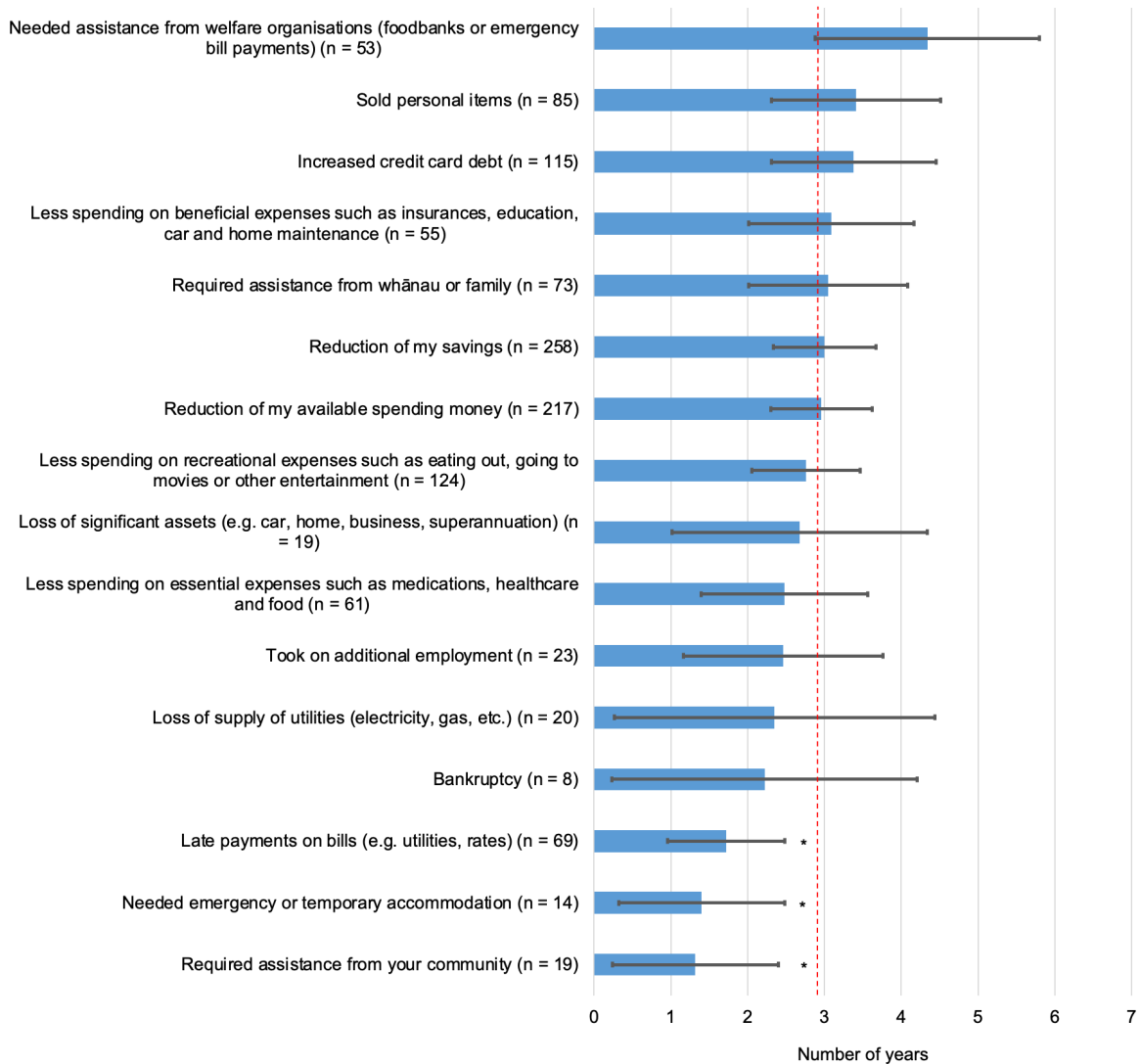


Figure 3. Mean number of years since most recent gambling issue was largely resolved for each financial harm.

Note: Red dotted line indicates the average number of years for these harms. * indicates statistically significant differences from the red dotted line. Error bars indicate 95% confidence intervals.

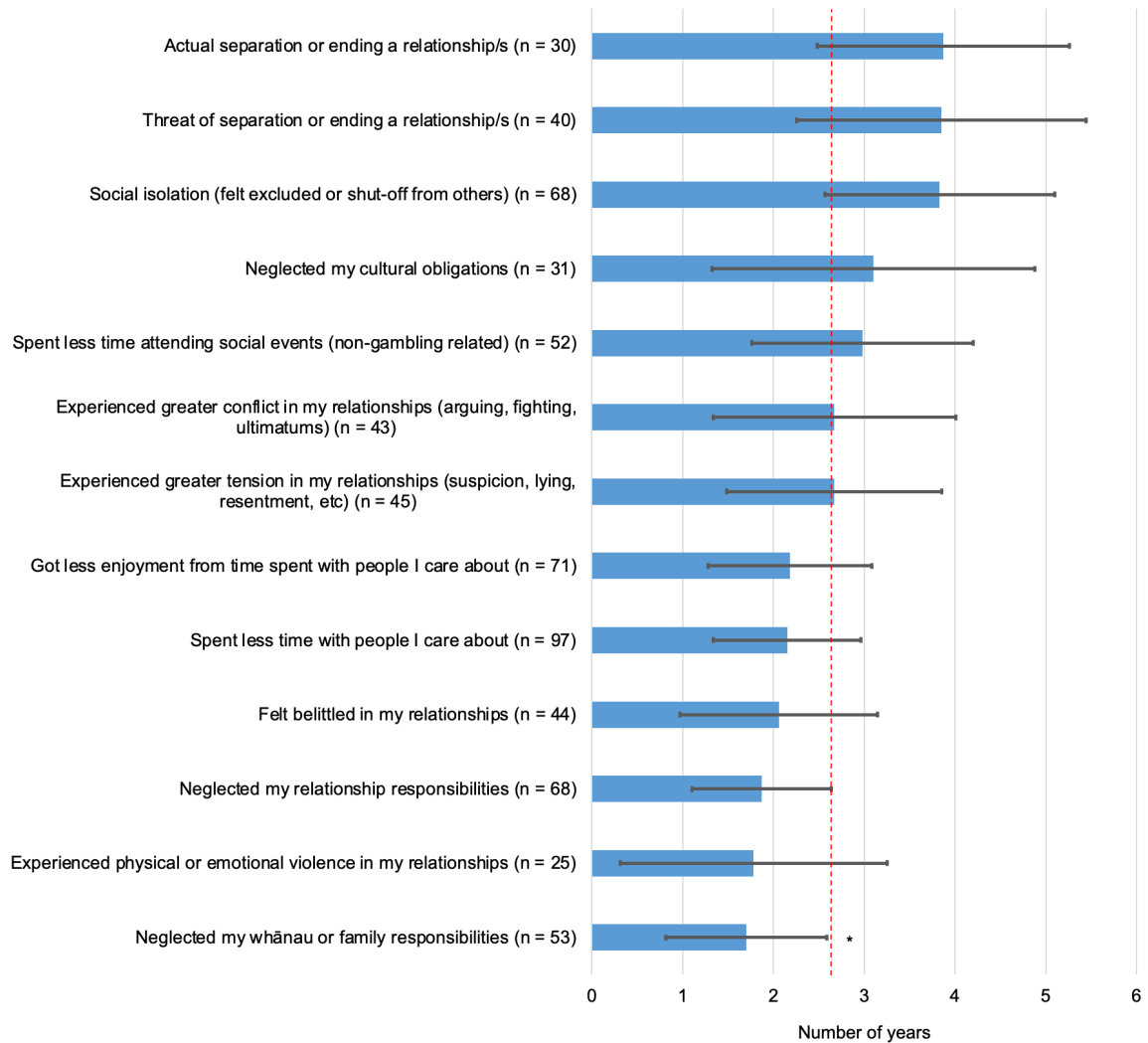


Figure 4. Mean number of years since most recent gambling issue was largely resolved for each relationship harm.

Note: Red dotted line indicates the average number of years for these harms. * indicates statistically significant differences from the red dotted line. Error bars indicate 95% confidence intervals.

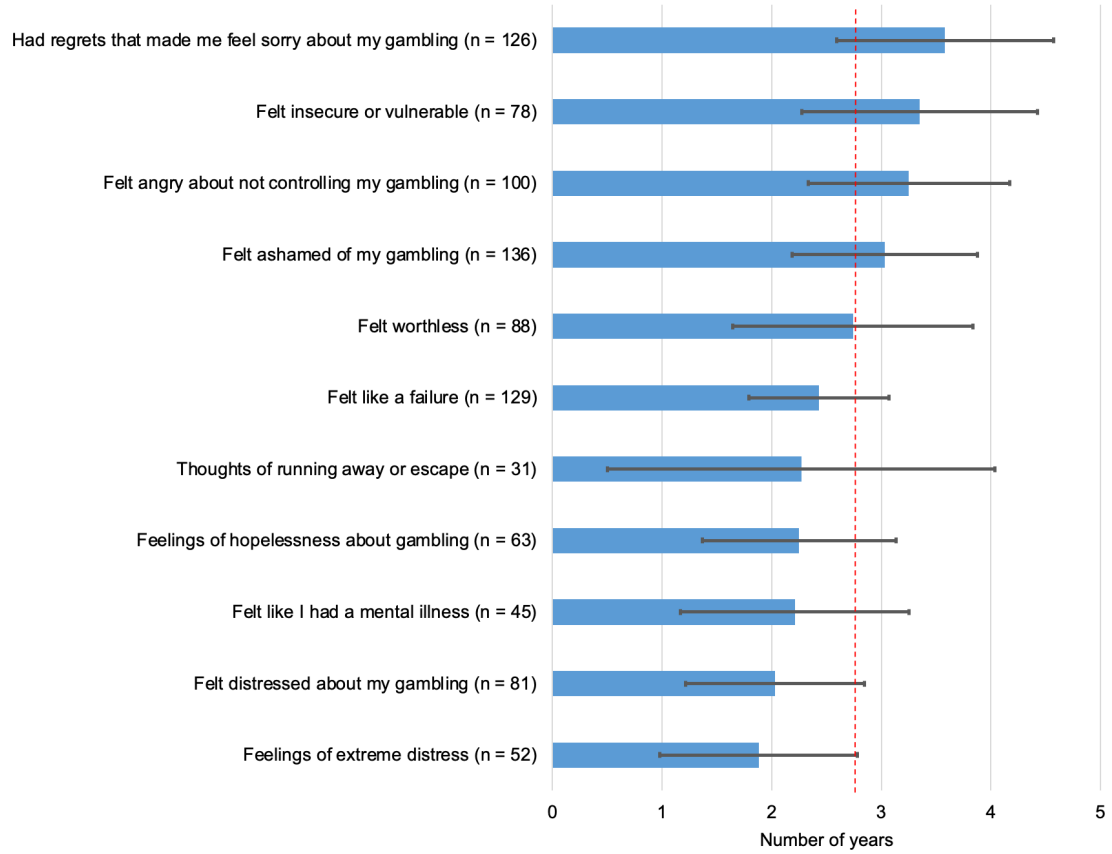


Figure 5. Mean number of years since most recent gambling issue was largely resolved for each emotional harm.

Note: Red dotted line indicates the average number of years for these harms. * indicates statistically significant differences from the red dotted line. Error bars indicate 95% confidence intervals.

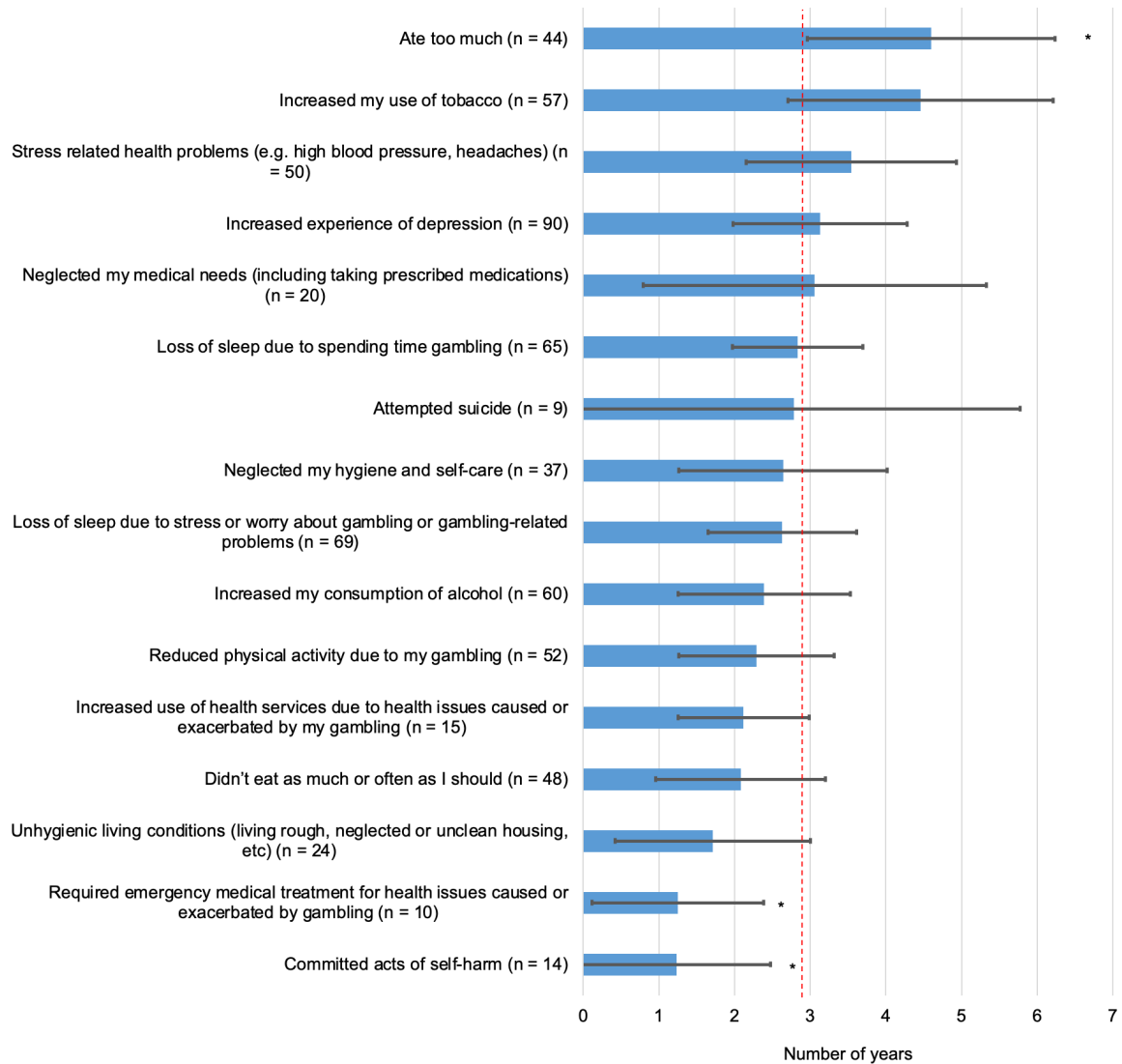


Figure 6. Mean number of years since most recent gambling issue was largely resolved for each health harm.

Note: Red dotted line indicates the average number of years for these harms. * indicates statistically significant differences from the red dotted line. Error bars indicate 95% confidence intervals.

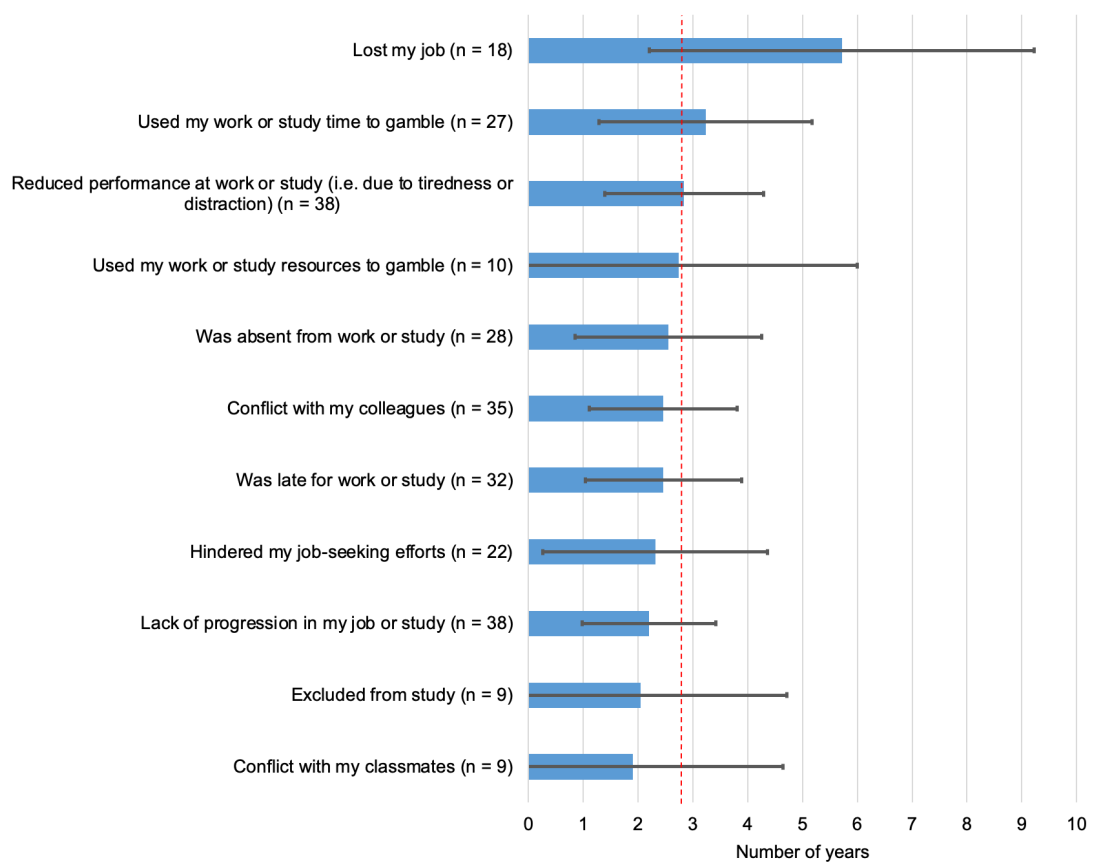


Figure 7. Mean number of years since most recent gambling issue was largely resolved for each work or study harm.

Note: Red dotted line indicates the average number of years for these harms. * indicates statistically significant differences from the red dotted line. Error bars indicate 95% confidence intervals.

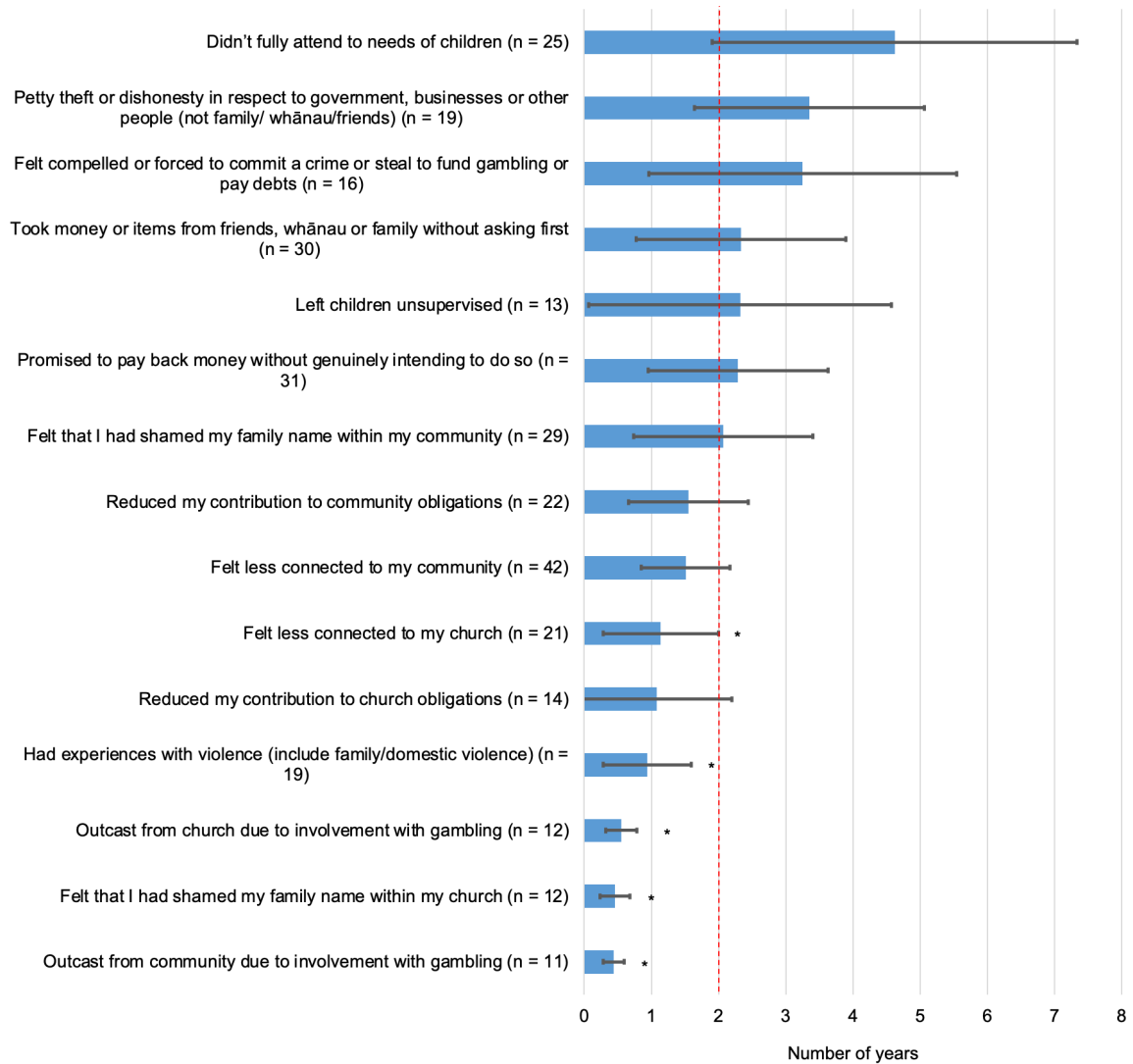


Figure 8. Mean number of years since most recent gambling issue was largely resolved for each other harm.

Note: Red dotted line indicates the average number of years for these harms. * indicates statistically significant differences from the red dotted line. Error bars indicate 95% confidence intervals.

Impact of legacy harms on wellbeing and health utility

Table 4 shows a significant decrease in both Health Utility Weight (HUW) and Australian Unity Personal Wellbeing Index (PWI) scores with a greater number of reported legacy harms. Moreover, the absolute values of HUW and PWI scores were similar for both gamblers and CSOs, and decreases in scores associated with harm were of an approximately similar magnitude.

Table 5 shows the HUW and PWI with respect to time since most gambling issues were resolved. For gamblers, HUW and PWI progressively recovered after most gambling issues were resolved, showing roughly proportionate increases on both health-outcome measures. However, the 10 year + values of .76 on HUW for gamblers and .73 for CSOs are modestly below the Australian population norm averages reported from the large-scale HILDA longitudinal health study ($M = .77$, $SD = 0.12$; see Norman, Church, van den Berg, & Goodall, 2013). Similarly, at 10 year + past when most gambling problems had ceased, the values of PWI at .65 and .67 for gamblers and CSOs, respectively, are below the Australian population norm of .75 (Khor, S. Cummins, R.A. Fuller-Tyszkiewicz, M. Capic, T. Jona, C.A. Olsson, C.A. Hutchinson, D., 2020). Importantly, however, there were no significant changes in HUW or PWI for CSOs over time, $p > .05$.

Table 4. Average health utility weight (HUW) for gamblers and CSOs by number of legacy harms reported

# Harms reported	Gamblers		CSOs	
	Avg. HUW	Personal Wellbeing Index (PWI) scaled 0-1	Avg. HUW	Personal Wellbeing Index (PWI) scaled 0-1
0	.74	.64	.74	.67
1	.76	.64	.76	.67
2	.74	.67	.73	.65
3-4	.71	.65	.70	.66
4-8	.68	.60	.66	.60
9+	.67	.60	.65	.60
$r_s^* =$	-.20**	-.05**	-.19**	-.13**

* Spearman's rank-order correlation between # harms reported and the outcomes of HUW and PWI for gamblers and CSOs, respectively.

Table 5. Average health utility weight (HUW) for gamblers and CSOs by time since the gambling issues ceased

Time since "issues" w gambling	Gamblers		CSOs	
	Avg. HUW ^a	PWI ^b scaled 0-1	Avg. HUW	PWI ^b scaled 0-1
0	.66	.55	.70	.64
0 – 1y	.71	.64	.72	.68
1y – 2y	.73	.63	.73	.67
2y – 5y	.74	.65	.72	.65
5y -10y	.74	.67	.73	.63
10y+	.76	.65	.73	.67
$r_s^c =$.24**	.14**	.04 ns	.01 ns

^a Personal Wellbeing Index

^b Health Weight Utility

^c Spearman's rank-order correlation between time since issues with gambling ceased and the outcomes of HUW and PWI for gamblers and CSOs, respectively. ** $p < .01$.

Legacy harms as a proportion of total harm

Estimating the proportion of legacy gambling harms in comparison to total harms required a calculation of each component of harm. The large components include legacy harms and the original harms experienced when people initially experienced their gambling problems (i.e., prior to recovery). Moreover, both legacy harms and original harms are typically experienced over several years. Consequently, a profile of gambling harm was constructed using the average number of years that gamblers suffer their original problems (4 years 6 months), and the number of years suffering legacy harms (truncated to 5 years²²). The profile used both health utility weights (HUW), and separately the Personal Wellbeing Index (PWI), for the purpose of integrating (i.e., summing up) harm over these years.

One of the first tasks for this exercise was to determine the "losses" in HUW and PWI experienced during these years. A fundamental assumption was made that the hypothetical average gambler at more than 10 years past their original problem would be fully recovered.

²² Losses have been limited to 5 years past the original gambling issue, since the dataset is sparse for people who are more distant from gambling issues (78% of respondents are less than 5 years distant from their problematic gambling issue) making the longer-term estimates unreliable and prone to leverage (i.e., results unduly influenced by only a few participants).

Thus, referring to Table 5, the base rate of recovery, or full health and wellbeing, for the average gambler was HUW of .76 and a PWI of .67.²³

The calculation method thereafter subtracted these full health figures (i.e., HUW = .76 and PWI = .67) from the corresponding figures for HUW and PWI in the “blocks” of years 0 through year 5 also displayed in Table 5. These calculated differences, or “losses” in utility, were subsequently multiplied by the number of years each block represents, since these health utilities are yearly figures that accumulate to form a total calculation of the deficit (losses) experienced for this episode of gambling problems.

Figure 9 shows these blocks for HUW where the height of each block is the yearly HUW deficit and the width of each block is the number of years the average gambler suffered from this calculated deficit (i.e., losses due to gambling harm). The figure shown within each block is the volume of that block, which represents the total losses in health utility experienced during each period. Different colours help distinguish the blocks, which in turn represent times at which different amounts of yearly losses were experienced. For instance, the losses of HUW for gamblers with current issues, calculated from year 0 in Table 5, are: $.76 - .66 = .10$ per year. Since original gambling issues last 4.5 years on average, the total HUW losses are: $.10 \times 4.5 = .45$.

From Figure 9, it is notable that HUW losses from legacy harms comprise an estimated 23.7% of total gambling harm. This figure is calculated by adding up legacy harm losses shown in Figure 9 (i.e., $.05 + .03 + .06 = .14$) and dividing by total losses ($.45 + .05 + .03 + .06 = .59$).

²³ The largest value for PWI was chosen (.67) rather than the slightly lower year 10+ figure (.65). Our assumption was that the small dip past year 10 was likely not practically significant.

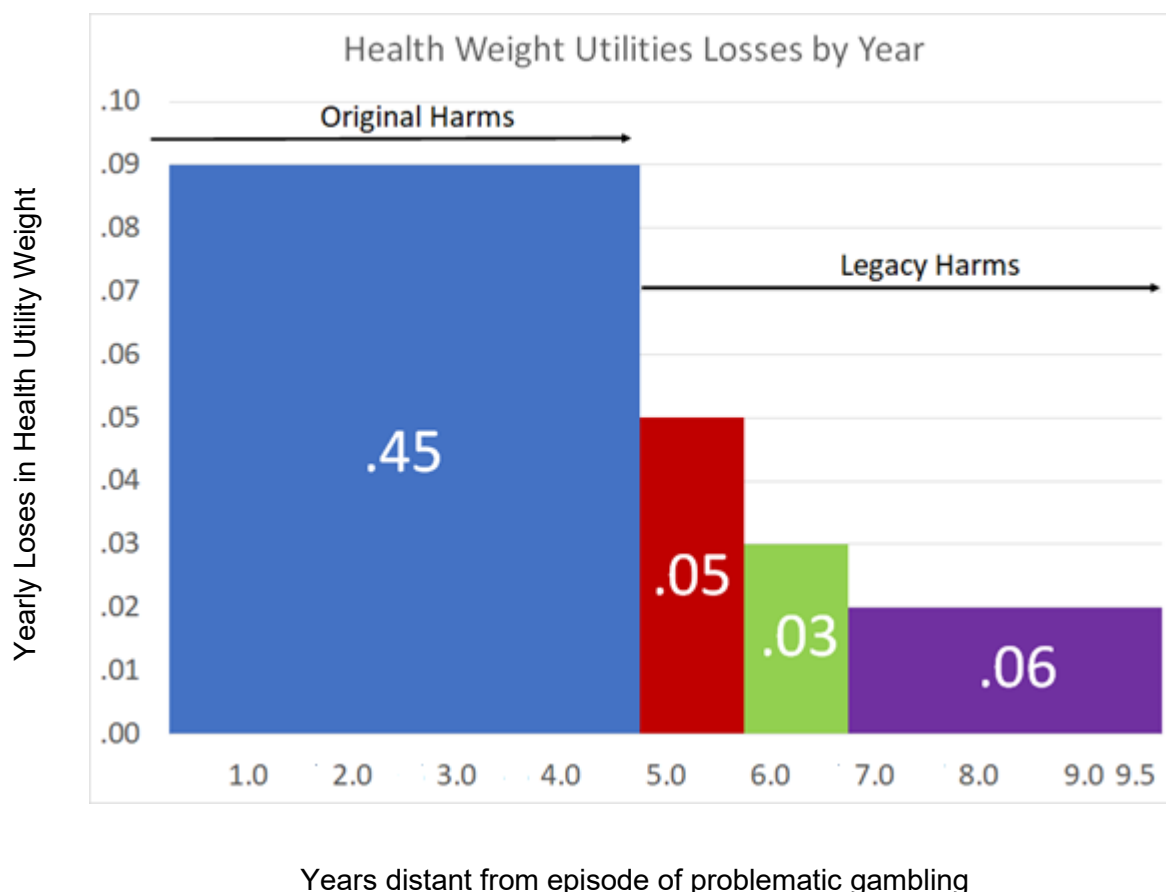


Figure 9. Health Utility Weight Losses for an Average Episode of Problematic Gambling

Figure 10 illustrates a similar calculation for estimated losses on the Australian Unity Personal Wellbeing Index (PWI) attributable to a past gambling issue. People with a current problem have losses of: $.67 - .55 = .12$ per year. Since original gambling “issues” last 4.5 years on average, total losses are: $.12 \times 4.5 = .54$. Furthermore, people who are between 2 y and 5 y distant from gambling problems have: $.67 - .65 = .02$ losses per year. Consequently, total losses between 2 years and 5 years past the original gambling issues are $.02 \times 3 \text{ years} = .06$ as shown in Figure 10.

From Figure 10 it is possible to estimate the proportion of total losses in personal wellbeing (PWI) because of legacy harms. Total losses in PWI are $.54 + .03 + .04 + .06 = .67$. Legacy losses are the subset: $.03 + .04 + .06 = .13$. Consequently, the proportion of total gambling-related losses in personal wellbeing attributable to legacy harms is $.13/.67 = 19.4\%$. Note that this is a similar figure to that obtained for HUW (23.7%) despite being a different metric based on separate survey questions.

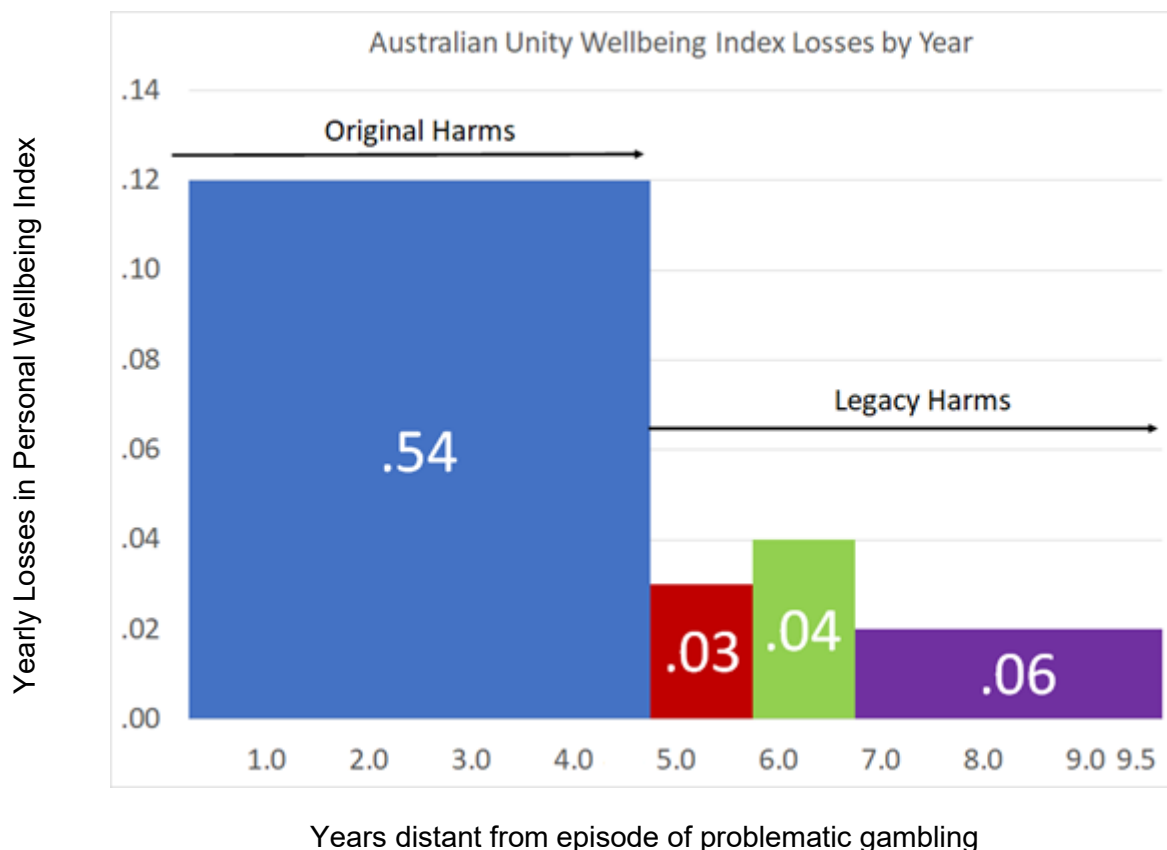


Figure 10. Personal Wellbeing Index Losses for an Average Episode of Problematic Gambling

Lifetime impact of gambling harm, inclusive of legacy harms

Table 6 below shows a calculation of the estimated lifetime impact of gambling problems, on average, inclusive of legacy harms and measured in terms of health utility weights. Low-risk gambling category calculations have been excluded since the HUW for these respondents did not deviate significantly from the HUW for people identified as non-problem gamblers. The calculation began with the HUW for people with current gambling problems, including separate calculations from the survey for moderate risk and problem gamblers. Using the logic outlined above, the “recovery rate” for people no longer suffering significant issues from gambling was taken from Table 5 at years 10+ past gambling issues, which was calculated to be .76. This is the full health and wellbeing expected from a gambler. This figure was subtracted from the HUW of gamblers with current problems (line 1) to get the yearly deficit (losses) in HUW imputed to be caused by gambling problems (line 2). Next, legacy harms were estimated at 23.7% of this amount (line 3) based on our prior analyses of legacy harms as a proportion of total harm. The total yearly losses in HUW (see line 4) added together the original harm and the fractional (23.7%) legacy harm.

The second half of Table 6 shows the average number of years people suffer from a gambling problem, 5.56 and 5.03, for moderate risk and problem gamblers, respectively. It also documents that moderate risk gamblers likely have 2.43 episodes of gambling issues and problem gamblers have 3.13 episodes in a lifetime²⁴, as calculated from the reports of the participants. Lastly, the total HUW deficit for moderate risk and problem gamblers is calculated by multiplying the yearly HUW loss (item 4) by the number of years with a problem (5) and the number of times people are likely to suffer such a problem (6). Moderate risk gamblers have a lifetime loss of 6 month, which is the equivalent of one-half a year when a person's life is not worth living. Problem gamblers, however, on average can expect an equivalent loss of nearly 2 years (specifically, 1 year 10 month) of life that is not worth living. Of course, this health utility loss is not suffered all at once, but rather the deficit extends to this equivalent amount over a number of years. These calculations make several simplifying assumptions that are detailed in the chapter discussion below.

Table 6. Calculation of Lifetime Harm, inclusive of legacy harms

			Risk Category	
Calculation			Mod. Risk	Problem
(1)	HUW ^a	Survey Mean	0.728	0.667
(2)	HUW deficit	(1) - .76 ^b	-0.032	-0.093
(3)	Legacy deficit	(2) x .24	-0.008	-0.022
(4)	Total	(2) + (3)	-0.040	-0.115
(5)	n yr w prob.	Survey Mean	5.56	5.03
(6)	# times prob.	Survey Mean	2.43	3.13
(7)	Lifetime	(4) x (5) x (6)	-0.54	-1.81

^a Health Utility Weight

^b recovery rate of HUW estimated at .76 per Table 4 10y+

²⁴ There was not a significant correlation between participant age and the number of episodes, and therefore the average episodes found in the sample was conservatively taken as the lifetime average for purposes of this calculation.

Differential effects of legacy harm by Ethnicity, Age and Gender

Table 7, below, illustrates the results of regression models predicting 1 or more legacy harms being chosen by participants in each domain, including Financial, Relationship, Emotional/Psychological, Health, Work/Study and Other harms by Ethnicity, Age and Gender. Ethnicity was dummy coded, with Europeans/other as the base category. People who indicated mixed ethnicities were assigned priority for ethnicity in hierarchical order of Māori, Pacific, Asian and European/other. Results show that selecting an ethnicity other than European/other failed to reliably predict the likelihood of endorsing legacy harms in any of these categories. It is important to note, however, that this analysis does not suggest that Māori, Pacific and/or Asian people do not experience more gambling harm overall. Instead, it shows that people from these backgrounds, once harmed by gambling, cannot be distinguished from European/other in terms of their propensity to have follow-on legacy harm(s). Additionally, a respondent's gender was also unrelated to the likelihood of endorsing a legacy harm within each category. However, younger respondents (i.e., under 40 years old) were more likely to suffer from either a legacy financial harm, relationship harms and/or a legacy work/study harm. Moreover, younger participants were also more likely to suffer from legacy harms considered as a whole. However, given the odds ratios are close to 1, the practical significance of these age-related findings is small. Nevertheless, the odds ratio reflects the relative risk of one unit change (i.e., 1 year younger) on the outcomes of harm, so the small deviation of the odds ratio from 1 needs to be considered given this context.

Table 7. Logistic regression predicting 1+ legacy harm(s) in each category by Ethnicity, Age and Gender

		Māori	Pacific	Asian	Age	Female	Const.
Financial	Exp(B)	.871	1.430	.976	.980	.932	1.883
	S.E.	.224	.399	.247	.005	.155	.256
	Wald	.377	.803	.009	16.070	.207	6.109
	p	.539	.370	.923	p < .001	.649	.013
Relationship	Exp(B)	1.105	1.209	1.138	.982	.776	.681
	S.E.	.257	.439	.280	.006	.183	.295
	Wald	.151	.186	.213	8.823	1.920	1.691
	p	.698	.666	.644	.003	.166	.194
Emot./Psych.	Exp(B)	.746	.656	1.247	.994	1.036	.597
	S.E.	.245	.452	.253	.005	.164	.268
	Wald	1.432	.873	.760	1.134	.046	3.696
	p	.231	.350	.383	.287	.829	.005
Health	Exp(B)	.780	.884	.745	.997	1.297	.294
	S.E.	.276	.480	.317	.006	.185	.305
	Wald	.807	.066	.860	.302	1.975	16.078
	p	.369	.797	.354	.583	.160	p < .001
Work/Study	Exp(B)	1.512	1.908	1.523	.978	.839	.253
	S.E.	.336	.528	.365	.009	.255	.417
	Wald	1.513	1.498	1.325	6.021	.475	10.886
	p	.219	.221	.250	.014	.491	.001
Other	Exp(B)	1.299	.596	1.319	.985	.891	.219
	S.E.	.330	.755	.360	.008	.247	.398
	Wald	.628	.469	.590	3.125	.217	14.535
	p	.428	.494	.442	.077	.641	p < .001
Any Harm	Exp(B)	.718	1.390	1.509	.984	.880	2.780
	S.E.	.222	.421	.261	.005	.155	.258
	Wald	2.233	.614	2.477	10.708	.680	15.746
	p	.135	.433	.116	.001	.410	p < .001

Discussion

Why should we care about Legacy Harms?

Gambling problems and gambling harms are often measured using a past 12-month timeframe. This convention stems from the practicalities of measuring these outcomes with research objectives that emphasise point-in-time statistics, such as the prevalence of gambling problems in the community. It is important to recognise, however, that gambling problems and gambling harm occur over a period that can extend deep into the past. There is the potential for past gambling issues, inclusive of serious problems, to contribute to harm over an extended period past the resolution of most of the issues. For instance, a person who loses a job because of time spent gambling may still not have a job after they have stopped gambling.

Legacy harms are important to understand because a person's total quantum of harm is obscured when only considering a 12-month timeframe. People who report only a few harms within the last 12-months, for instance, may have less serious issues with gambling. Alternatively, they might instead have had a serious past issue but are now only experiencing some legacy effects of their gambling involvement. A better understanding of the time course and impacts of legacy harms can have important implications for setting expectations in the treatment of gambling problems and reduction of gambling harms. New knowledge can help recovering gamblers gauge how quickly they might experience improvements in their lives after the resolution of their gambling disorder. In addition, such knowledge can be the first step in devising interventions and strategies to reduce and ameliorate the effects of such legacy harms.

Do gambling harms continue after most of the issues have been resolved?

The first testable hypothesis was whether people indicate that they still suffer harms from past gambling after previously indicating that "most" of the issues had ended. From our survey of 735 gamblers who had indicated that they experienced at least some issues in the past, 417 (56.7%) indicated that they still had some legacy gambling harms. Similarly, the 505 Concerned Significant Others (CSOs) who had someone in their lives who had caused them gambling-related issues, 291 (57.6%) also reported legacy harms from this past issue. Thus, considering gambling problems as a discrete issue that, once resolved, no longer causes harm is not consistent with people's experiences. Moreover, further evidence that these legacy harms are associated with decreases in wellbeing are indicative that these legacy harms are not simply imagined injuries or manifestations of past regret, but rather indicative of true harm that interferes with people's normal enjoyment of life.

What is the pattern of decay/reduction in gambling harm?

Another testable hypothesis was that legacy harms decay/reduce with increasing distance from a gambling problem or issue experienced in the past. That is, if we assume that legacy harms are generated from the initial period of intensive and problematic gambling, any residual harm that people suffer should decrease with the passage of time. This decrease should be similar to how impairment from a physical illness often disappear with time and healing.

The study evidence shows that reported legacy harms of gamblers reliably decrease as a function of the distance from their past reported “issue.” CSOs did not show this predicted decay/reduction in the report of gambling harms by distance from the issue. Although it is not clear why this is the case, it is important to note that a substantial number of CSOs were current gamblers who experienced their own current problems with gambling (i.e., PGSI score 1+). It is possible that CSOs in our sample were not able to reliably distinguish between harm experienced from someone else’s gambling, when presented with a list of harms, and the harm that they experienced from their own gambling involvement. Regardless of the explanation, it was not possible to calculate decay/reduction of legacy harms for CSOs given the failure of this test of decay. Additional time-based analyses of legacy harms for CSOs were not conducted given our lack understanding for why legacy harms did not appear to reliably diminish over time.

Is the pattern of decay/reduction dependent on the type of harm (financial, relationship, etc.)?

A logistic regression model quantifying the absolute rate of decay/reduction in legacy harms found that it was not significantly different based on the type of harm; inclusive of the harm categories of financial, relationship, emotional, health, work/study, and other harms. Although legacy harms decay at approximately the same *absolute* rate, some types of harms are generally more prevalent than others (e.g., “loss of savings”) (Browne et al., 2017). Consequently, the proportional rate of decay/reduction (i.e., rate as a percentage) for more prevalent harms is much lower than harms that are less prevalent. Thus, a person in recovery from gambling problems is more likely to suffer from future financial harms, for instance, rather than work/study harms since the former decay or reduce at a slower rate in percentage terms and therefore results in a longer half-life.

Which specific harms are more or less long-lasting?

For every legacy harm, it was useful to calculate the average recency for their gambling problem/issue. Logically, if people who suffer a particular legacy harm are close in time to their gambling problem, other people more distant to the problem will have suffered that harm in the past - but suffer no longer. By this criterion, several specific harms were identified as resolving more quickly than others (i.e., a half-life substantially less than the 4-year average). Most of these quickly resolved harms relate to people’s social relationships. These harms included “neglected my whānau or family responsibilities,” “outcast from church due to involvement with gambling,” “felt that I had shamed my family name within my church,” and “felt less connected to my church.” Other quickly resolved harms related to acute financial distress, including “late payments on bills (e.g. utilities, rates),” “required assistance from your community,” and “needed emergency or temporary accommodation.” Another class of short-lived harms relate to violence and injury, including “committed acts of self-harm,” “required emergency medical treatment for health issues caused or exacerbated by gambling,” and “had experiences with violence (include family/domestic violence).” Lastly, one harm was longer lasting than others (i.e., a half-life greater than 4 years): “ate too much.” Of course, it is possible that people misattribute their inability to control their eating to a past gambling problem. It is

also well known that a reversal of weight gain, which is mostly a consequence of overeating, is difficult regardless of the original reason for the gain (Rogers, 1999).

What is the impact of legacy harms on wellbeing and health utility?

When people indicate that they have continuing legacy harms from gambling, it is helpful to document whether these harms truly impact on people's ability to enjoy their lives. It is possible that people can inflate their experiences of legacy harm for many reasons, including good-subject effects where people may try to provide "correct" answers to the imagined expectations of the researchers (Nichols & Maner, 2008). Two separate forms of evidence, Health Utility Weights (SF6-D) and the Personal Wellbeing Index (PWI), were gathered to form associative evidence that legacy harms as well as current harms may impact on a person's normal enjoyment of life. As expected, a greater number of reported legacy harms were associated with lower self-reported scores on both Health Utility Weights and Subjective Wellbeing, and these findings were consistent for both legacy harms suffered by gamblers and CSOs.

Using the 10-year+ mark past a gambling issue as a baseline for gambling recovery, a calculation was made for the relative decrements to health utility weights and (separately) personal wellbeing for the average respondent in the study. On average, people had 4.5 years when they suffered some issues/problems with their gambling, and most of the deficits in health utilities and wellbeing were close to nil 5 years after the end of the issues. By adding-up the deficits from both measures, it was possible to estimate that the total burden of legacy gambling harms is either 19.4% or 23.7% of the overall harm for this "average" gambler, dependent on the outcome used (PWI or SF6-D). This calculation provides some evidence that legacy harms are not simple misreporting, but rather are associated with quantifiable poor outcomes in terms of health and wellbeing.

What is the lifetime impact of gambling harm, inclusive of legacy harms?

An additional calculation was made on the lifetime impact of gambling problems in terms of decreases in associated health utility and subjective wellbeing. Participant gamblers indicated the length of their most recent issue with gambling and the number of discrete times, separated by periods of 12 months, when they experienced problems. By using information on yearly decrements to health utility weights for moderate risk and problem gamblers, along with estimates of likely legacy harms (~24% of original harms), a calculation was made for lifetime impact. Low-risk gambling category calculations were excluded since the Health Weight Utilities (HUW) for these respondents did not deviate significantly from the HUW for people identified as non-problem gamblers.

The "average" problem gambler suffered a loss of 1 year and 10 months over a lifetime, whereas a moderate-risk gambler suffered a loss of 6 months. It is important to note that these are only average calculations and rough estimates, since there is a great degree of heterogeneity in individual experiences. Moreover, a simplifying assumption is that each episode of gambling is similar in terms of loss, whereas the true experience of gamblers may include a mix of high and low harm episodes of gambling harm over the lifetime. It is also notable that our estimates are based on associations with broad metrics of health and wellbeing that are not explicit about gambling. Consequently, these estimates may be smaller than those estimated by other common methods, including direct elicitation methods used in the past. Nevertheless, these calculations suggest that gambling harm for moderate risk and

problem gamblers has substantial consequences over the lifespan with respect to people being able to enjoy life.

What are the differential effects of legacy harm by Ethnicity, Age and Gender?

An important issue is the potential for disparities in health between people from different ethnic backgrounds. Age and gender disparities also represent individual differences that are important to explore with respect to inequities. Our analyses suggest, however, that the likelihood of experiencing legacy harms occurring to gamblers in each major category (financial, relationship, etc.) are not significantly more (or less) probable for people from Māori, Asian or Pacific Islander backgrounds when compared to people of European descent. There were no identifiable gender differences. Younger people (i.e., less than 40 years old), however, are more likely to suffer legacy financial harms, relationship harms and work/study harms. This finding may relate to the fact that some (although not all) people over 40 years old have more financial resources, and thus can more easily recover from financial hardship. Younger respondents are more likely to be studying, establishing their careers and building relationships, which may also explain their greater likelihood of experiencing legacy work/study and relationship harms.

Limitations

Gambling “issues” or gambling “problems?”

This study asked people about a time in their life when gambling caused “issues” for them - no matter how minor. The intention behind the soft language of people identifying “issues” rather than a “problem” with gambling was intended to minimise the chance that people might deny problems due to stigma. However, it is implicit in the analyses that followed that each gambling “issue” was taken to be a discrete period of time when people suffered from gambling problems. Moreover, the analyses also assumed that people could identify a discrete period of time when most of these issues with gambling started and ended. Participants were asked to make these subjective judgements, and there is no way to check whether such discrete bounds are appropriate.

What are the assumptions behind calculations of lifetime harm?

There are important caveats regarding all descriptions of gamblers’ experiences, including decrements to wellbeing, based on the calculation of experiences for the “average gambler.” Few if any gamblers will neatly represent such averages. There is considerable heterogeneity with respect to the experiences of gambling harm. This caution is particularly important regarding the calculation of lifetime impacts of harm for moderate risk and problem gamblers. The calculation made a strong, but necessary, assumption that people with gambling problems suffer the same degree of problems and length of problems in each episode. Real gamblers may have a mix of low and high-risk problems across the lifespan with episodes that span different lengths of time. Nevertheless, these calculations are a good “first step” in estimating the lifetime burden of harm for people with severe gambling problems.

Limits for assessment of legacy harm from HUW and PWI

Associative measures of wellbeing and health state utilities, including HUW and PWI, probe some aspects of experience that are clearly not relevant to gambling issues, and therefore may underestimate its negative impacts. For instance, one of the questions on HUW asks about the ability to climb a set of stairs. One of the questions for PWI asks: “How satisfied are you with how safe you feel?” Thus, for many of these outcome measures it is difficult to imagine how gambling involvement might directly affect people’s answers. Alternative measures for decrements in wellbeing, such as the time trade-off or standard gamble (Attema, Edelaar-Peeters, Versteegh, & Stolk, 2013; Gafni, 1994) have provided generally higher estimates of harm from gambling (Browne et al., 2017). On the other hand, these alternative measures may have bias where people attributing negative consequences in their lives to gambling problems when other issues (e.g., alcohol) may have some responsibility.

Exclusivity of Gamblers and CSOs

To simplify the analyses, people with past gambling problems were preferentially identified for inclusion in the sample as “gamblers”, and only people who failed this test of past problems were further tested as being potential CSOs. In reality, people with lifetime gambling problems may also be a CSOs of another gambler. Although the study inclusion procedure was useful analytically, the study consequently did not explore the potential impact of being both a gambler and a CSO on wellbeing exclusive of only being a gambler. This distinction could be explored in future research.

Conclusion

This quantitative study documented the substantive impact of legacy gambling harms on health and wellbeing. Legacy harms constitute an estimated 19.4% - 23.7% of all gambling harm. For harm accruing to gamblers, legacy harms decay/reduce according to a logistic curve with distance in time from a past gambling problem or issue. The half-life of financial harms is relatively long, estimated at 5 years, whereas the half-life of work/study harms are shorter at 2 years 6 months. Since many people experience multiple episodes of gambling problems, the lifetime impact from gambling harm can be substantial. Problem gamblers can have an estimated 1 year 10 months of life lost to disability. Younger adults (i.e., under the age of 40) are more likely to suffer legacy financial and work/study harms. Gambling-related harms impacting on social relationships, such as church membership, and acute financial harms, such as needing temporary accommodation, resolve relatively quickly. Incidents of injury and violence, including domestic violence, appear over shorter timespans than other harms. A better understanding of legacy harms, and baseline expectations for their severity and longevity, can forewarn and forearm recovering gamblers and CSOs and help reduce the impact of these issues during recovery.

Chapter 3: Qualitative Study

Life course and legacy gambling harms in New Zealand: Engagement with the perspectives and experiences of gambling treatment providers

Introduction

Gambling is a complex policy issue, shaped by cultural, social, and economic values that make conceptualising and addressing associated harms difficult (Price, Hilbrecht, & Billi, 2021). To avoid unintended consequences, harm prevention and reduction research and practices must be relevant and responsive to the social and cultural situation of different populations and settings affected (Wardle, Bramley, Norrie, & Manthorpe, 2019). The distribution of harms in societies is unequal, reflecting health inequalities as some groups display greater risk of harm from engagement in gambling. For example, people living in more deprived areas and those facing economic uncertainty are more apt to see gambling as a solution to financial problems. In New Zealand, people with Māori, Pacific and Asian heritage are disproportionately affected by gambling problems (Abbott, Bellringer, Garrett, & Mundy-McPherson, 2014). Exploration in the literature of how cultural contexts affect the range and severity of harms experienced is limited. 'Cultural harm' is a specific domain outlined in past research that has yet to receive detailed attention (Langham et al., 2015).

Aims and research questions guiding the qualitative component

This qualitative study was designed to explore instances of life course and legacy harms identified in the gambling literature and preliminary findings from the quantitative component of this research. This involved validating key categories of harm and making visible any additional harms using illustrative examples from the New Zealand context. Key aims were to provide insight into the impacts and consequences of life course and legacy harm, with particular consideration of 'legacy cultural harm' experienced by Māori, Pacific and Asian populations. A related aim was to identify and share some current practices and strategies for addressing legacy harm in New Zealand. During the course of the interviews, it was sometimes difficult to separate discussions of legacy and life course harms from chronic harm due to a long-lasting gambling problem. When it is possible to be clear about the contributions, we define legacy harms as negative consequences that linger after a gambling problem is largely resolved. That is, a person may no longer spend excessive time and money gambling, but harms from past gambling involvement still exist. In contrast, life course harms are negative consequences of gambling that alter a gambler's life achievement, long-term health or wellbeing, or similarly affect the life outcomes of concerned significant others connected to the gambler. Lastly, chronic harms are issues that affect gamblers who have long-term, chronic or recurrent gambling problems. Chronic harms are not the intended subject of these studies, but nevertheless our interviewees shared reflections on chronic harms that are identified herein when they could not be distinguished clearly from life course or legacy harms. The particulars of harmful consequences from gambling, such as lack of savings or relationship problems, do not manifest exclusively as legacy, life course or chronic. Instead, as described above, an experienced harm can be classified by how it is expressed over time.

The research questions were threefold:

1. How do gambling harms impact on the life courses of people with past gambling problems, and concerned significant others (CSOs) connected to that person?
2. What are the (potential) legacy and life course 'cultural harms' that may vary between New Zealanders with Māori, Asian, Pacific, and European/Other heritage?
3. How do counsellors (successfully and unsuccessfully) address long-term and legacy gambling harms within their professional practice?

Methods

This qualitative component forms part of the overarching mixed methods design which includes the core quantitative analyses explored in the subsequent chapter. The mixed methods design engaged the notions of 'complementarity' and 'development', where different methods are used to explore different features of the same phenomenon and the use of one method informs the use of subsequent methods (Creswell & Creswell, 2017). This component took a qualitative descriptive approach (Vaismoradi, Turunen, & Bondas, 2013) and used thematic analysis (Braun & Clarke, 2006) to explore the views and experiences of gambling treatment service staff regarding life course and legacy gambling harm. Given New Zealand's explicit positioning of gambling harm as a public health issue, gambling treatment service staff engage with a wide range of affected individuals and communities in their multiple roles as treatment providers, public health promoters and harm prevention and reduction advocates (Adams & Rossen, 2012). Gambling treatment service staff were, therefore, considered key informants on life course and legacy harm issues and experiences, recognising that their knowledge and accounts of harm are necessarily constructed through their own personal and professional roles and lenses. Staff contributed their own experiences regarding the support and treatment approaches they employ to address life course and legacy harm.

Consultation

A key component of the qualitative study was to explore gambling-related harms experienced by Māori, Pacific and Asian individuals and communities, it was imperative that cultural integrity and appropriateness of the research process were considered from the outset. Prior to conducting interviews, the research team consulted with managers from four ethnic-specific gambling treatment services including two Māori services, one Pacific service and one Asian service. Managers from three mainstream services were also consulted. These services are based in both the North and South Islands of New Zealand. The purpose of the consultation was to ascertain interest in the qualitative study and refine the study design. These refinements are detailed in the section outlining the interview process and protocol below.

Participants

Participants were professionals working in gambling treatment services who self-identified that they had knowledge and expertise regarding people experiencing legacy and life course gambling harms, inclusive of intergenerational harms, that were suffered because of clients' past gambling problems. The organisations involved in the study included:

- Three national mainstream gambling treatment services

- One regional mainstream gambling treatment service based in the South Island
- Two regional Kaupapa Māori services both based in the North Island
- One regional Pacific service based in the North Island
- One national Asian service.

Twenty participants were recruited for interviews, comprising team leaders, clinicians/practitioners (i.e., counsellors, social workers and nurses), caseworkers, and public health promoters. Participants had a significant range and depth of experience in the gambling treatment sector; the time working in the sector ranged from one year to more than 20 years. Table 8 details participant role and service population.

Table 8. Participant role and service population

Participant Role	<i>n</i>
Clinician/practitioner	8
Team leader	6
Public health promoter	3
Case worker	3
Participant Service Population	
General	11
Māori	5
Pacific	3
Asian	1

In the results section, participants' quotes are referenced using an anonymous code, role, and service population. For example, a clinician/practitioner participant from a Kaupapa Māori service is referenced as (Participant X, clinician/practitioner, Kaupapa Māori service).

Data Collection and Analysis

Ethical Approval

Auckland University of Technology Ethics Committee (AUTEK) granted ethical approval for the qualitative study on 27 May 2020 (Reference: 20/113 Life course and legacy gambling harms in New Zealand).

Participation in interviews was voluntary and participants were informed that they could withdraw from the study up until the time that interviews had been analysed (November 2020). No participants withdrew. Participants signed an electronic consent form (refer to Appendix B) prior to the interview. At the start of each interview, the interviewer ensured that each participant understood the study and participation. Consent was received from all participants to audio-record the interviews.

Interview protocol and process

A semi-structured interview protocol was developed by the research team, based on the literature review and preliminary findings from the quantitative component of this study. A list of life course and legacy gambling harms generated during the online survey were categorised to prompt participants around types of harms. The interview guide was refined through consultation with gambling treatment services. The refinement was minimal and included adding a definition of what was meant by legacy and life-course harms; asking about Māori, Pacific and Asian perspectives separately; including the terms *whaiora*, *whānau*-affected and service user instead of client, and the addition of a question around legacy legal harms.

The interview protocol covered the following areas:

- General questions on legacy and life course gambling-related harms, inclusive of intergenerational harms
- Legacy, life course and intergenerational gambling-related harms that are unique to, or specifically affect, individuals or communities from different ethnicities
- Questions on the following types of harm
 - Financial harm
 - Relationship harm
 - Emotional and psychological harm
 - Harm to physical health
 - Work and/or study related harms
 - Harms to, or from, others
 - Legal harms
 - Addressing legacy, life course and intergenerational harms in New Zealand, including specific treatment approaches

All interviews were conducted via Zoom, a teleconferencing platform. The convenience and ease of access of Zoom meant that participants from around New Zealand could take part in an interview at a time and location suitable to them. Interviews lasted an average of 61 minutes and ranged from 32 to 90 minutes. Audio-recordings of each interview were downloaded and stored securely on local network drives only accessible to the research team. At the conclusion of interviews, participants were sent a *koha* (\$20 petrol voucher) in recognition of their time and expertise they shared within interviews.

A professional audio transcription service was contracted to transcribe interview recordings. Interviews were transcribed using 'intelligent verbatim', a method of transcription which removes filler words such as 'um', 'er', and 'like.' All transcribers signed a confidentiality agreement prior to receiving the recordings. The research team reviewed transcriptions for accuracy and errors.

Data analysis

An iterative process of coding and analysis yielded rich descriptive and interpretive accounts of how professionals engaged in gambling treatment services understand the nature and consequences of legacy, life course and intergenerational gambling-related harms. NVivo 20, which is a software programme designed to organise data for qualitative research, was used to support data exploration. Thematic analysis took an inductive approach based on patterns identified in the data, rather than using the structure of individual interviews or an a priori

coding frame to identify themes. The analysis followed the six steps set out by Braun and Clarke (2006). Initially the researchers familiarised themselves with the data by reading and reviewing the interview transcripts. The researcher who analysed the data also conducted the interviews, adding to the level of familiarisation. Next, initial codes were generated in relation to each research question from which trends and patterns were identified and grouped. These groups formed the basis for themes, inclusive of main themes and subthemes. The themes were reviewed against the data and were included if theme-related responses featured frequently throughout separate interviews and related to the research aims. In some cases, a theme was included with fewer comments but where the content was directly and notably related to a research question. Finally, the main- and sub-themes were defined and named.

Throughout the analytic process, there was ongoing discussion within the research team to ensure rigour and avoid confirmatory bias. A second researcher independently coded 25% of the transcripts and then compared their findings with the first researcher. Where inconsistencies occurred, the researchers discussed the differences and agreed upon coding protocols prior to finalising the analysis.

Safeguarding validity and rigour

Several processes were included specifically to enhance validity and rigour in this component. First, a semi-structured interview protocol was utilised to generate rich and quality data (Smith, 1995). A semi-structured interview allowed the interviewer to ask follow-up questions, clarification and continue a novel discussion path. Additionally, it allowed participants freedom of response leading to detailed and open-ended answers (Braun & Clarke, 2006; McIntosh & Morse, 2015; Smith, 1995). Consultation with treatment providers on the interview protocol also ensured that questions were relevant and appropriate for the research and the services. During interviews, the interviewer took notes to enhance understanding of certain points or to ensure a follow-up question or clarification was asked. Finally, participants were given an opportunity to review and edit the transcription of their interview to ensure accuracy.

During analysis, reflexivity (a continuous process of reflection on one's relationship to the research process and findings) was supported by diarising reflections and utilising a reflective, collaborative method of analysis, involving ongoing discussion with the research team regarding first impressions and developing findings (Morrow, 2005; Noble & Smith, 2015; Nowell, Norris, White, & Moules, 2017). Finally, quotations were used alongside theme descriptions to support the researchers' analysis and interpretation of the data. The inclusion of quotations enables the reader to evaluate whether the researchers' analysis and descriptions are supported by participants' views and experiences (Morrow, 2005; Sandelowski & Barroso, 2002).

Results

Nearly all participants explained that by the time most of their services' clients sought support, they had generally been gambling for a long time – often many years, sometimes decades, and were 'in crisis' - experiencing a significant level of harm in multiple areas of their lives. Participants emphasised that they primarily worked with people experiencing crisis level harms and did not generally work with clients over the long term; however, several participants had clients who returned for an annual check in. Nevertheless, all participants reported that

through their gambling harm prevention and reduction roles they had witnessed the legacy consequences of gambling on clients, their families' lives and communities.

Five main themes relating to legacy, life course and intergenerational harms were identified:

- (1) Life course harms: Harms that change the course of an individual's or family's life
- (2) Intergenerational harms
- (3) The interrelated nature of life course and intergenerational harms
- (4) Life course and intergenerational harms that affect different ethnicities and communities; and
- (5) Interventions and addressing life course and intergenerational harm.

The discussion of the results, below, is organised around these themes. Each main theme also included several sub-themes, which explored facets of the main theme in more depth.

Life course harms

Life course harms that affected the individual or their family were related to finances (e.g., debt, bankruptcy and household financial roles), mental health and wellbeing (e.g., shame, identity, and self-harm and suicide), relationship wellbeing (e.g., loss of trust and separation/divorce), ongoing repercussions of family violence, work and study (e.g., loss of job, change of career), legal harms resulting in informal and formal action, an increased risk of later physical health problems, and damage to an individual's or family's social and cultural capital.

Financial repercussions: Debt, bankruptcy, and changing financial roles

All participants reported that the financial consequences of gambling could be particularly devastating to an individual and their family. Some reported that the repercussions of financial losses and debt could be the most far-reaching harm experienced by some clients and leave a lasting legacy. Examples of financial losses that could change a person's life course included a cycle of loans (particularly when predatory lenders were involved), bankruptcy, lack of retirement savings, and a drive to recoup losses. Most participants reported having worked with someone who had lost relationships, accommodation or housing, employment or a business, or experienced significant mental health impairment as a result of the financial harm experienced by themselves or their family due to gambling.

“Borrowing money and the long-term implications we have seen is that people will file for bankruptcy. They will never get back up again... They've been low down and that's it and then when they're in that sort of space and they feel unworthy, everything else dominoes from that. They feel that they know nothing, and the shame as well, especially around money.” (Participant 19, Clinician, Kaupapa Māori Service).

“I think one of the long-term harms for people is financial ruin. That's probably the biggest one. Especially if they're on that severe gambling disorder spectrum; by the time they get to see me, there's typically an awful lot of debt floating around. There's ways they can get out of it through bankruptcy and other financial things that they can do to get out of the debt, that's not always a valid option. And, so it can take years, if not a good decade... I've had clients lose businesses, lose houses, bankrupt; any and every adverse financial affect you could imagine.” (Participant 3, Clinician, General Service).

Over time, attempts to win back losses, pay back debt, or continue gambling led to significant life course changes for some clients. For example, participants mentioned clients who had stolen from family, friends and employers, committed fraud and other crimes, or started dealing drugs in order to make money to repay debts. The life changing result of these actions included relationship dissolutions, isolation from friends and family, reputational damage, and criminal convictions, which left a lasting legacy into the future.

“We've got people that have never even been in trouble before, but they've defrauded to fund their gambling habit. So, they're sitting in jail now. They're sitting in there with

people that are seasoned criminals.” (Participant 17, Clinician, Kaupapa Māori Service).

“It was a father in this case; where he would be able to access funds from his son’s account, access funds from his wife’s account, and become very familiar with the wife’s hiding place for money. He would borrow money and not pay it back.” (Participant 14, Public Health Promoter, Pacific Service).

Participants reported that the financial consequences experienced by many clients caused a shift in the financial roles of family members, significantly influencing their life course. Job loss, financial debt or other financial consequences of gambling may cause financial strain and require the spouse/partner who may not normally provide a financial contribution to the family, to seek or increase employment or become the main earner. For example, the following participant explained that after a job loss, their client had to retrain before re-entering the workforce, requiring the family to offset the lost income by taking on additional work:

“It creates pressure on the remainder of the family to provide more while that person is redefining their professional life, their working life. Usually there’s someone else who has greater pressure on them to provide or work harder.” (Participant 6, Clinician, General Service).

Mental health and wellbeing: Shame and self-harm and suicide

The mental health impact on the life course was discussed as one of the most profound gambling-related harms. Some participants discussed the difficulty in establishing the causal direction of the relationship between mental health issues and gambling; however, nearly all reported that the consequences of gambling on an individual’s mental wellbeing could be enduring and had changed the life of many of their clients.

“The long-term harms that I can see around gambling is mental health... that’s a very strong one because if something impacts your mental health, it disturbs the entire life system... yes, money lost can be earned back. You could make some changes and recover some of those financial losses but once you get into mental health issues it’s very hard for you to come out of it completely unless you make very, very strong changes. But those impacts stay with you for a longer time and intergenerationally.” (Participant 9, Case Worker, General Service).

All participants discussed the shame/whakamā associated with problematic gambling, which could be pervasive. Although the shame was often referred to as a crisis level harm, participants reported that the lingering guilt and shame could continue to occur decades after gambling issues had been resolved.

“It seems to have a long-term effect on someone’s emotional and mental health even when they’re doing very well in terms of their journey away from gambling. They appear to periodically feel very concerned about not just the distress they have caused other people; whether that’s people losing faith in them and trust in them and the relationship ending or family relationships severing.” (Participant 6, Clinician, General Service).

The most significant life course harms associated with mental health and wellbeing were self-harm and suicide. Most participants had worked with clients who had some self-harming behaviour. More than two-thirds of participants had worked with clients who had attempted

suicide or presented with suicidal ideation, or who had relatives that had attempted/committed suicide. Suicide is irreversible and has significant and enduring effects on the individual's family, friends, wider social network, and community. One participant reported that the rate of harmful gambling amongst people who had committed suicide was likely to be underreported.

“Definitely some that have had plans and intentions. I have had a few clients over the years who have come to us after being unsuccessful in suicide attempts following gambling binges and not wanting to tell their loved ones that they just spent their life savings in gambling – it would be easier to be dead.” (Participant 18, Clinician, General Service).

“I’ve had clients who have tried to commit suicide and have been found and resuscitated before passing away... some of them describe feelings of utter despair to the point where no one or no one thing could ever help them in the future, and it was their choice to end their lives because they couldn’t see a way out or they had got into so much debt that they felt they had no other choice.” (Participant 12, Clinician, General Service).

Altering relationships: The long-term implications of loss of trust and separation

Following disclosure of a gambling problem, some partners/spouses chose to leave a relationship whilst others chose to stay. Both decisions alter the life course. When the partner/spouse decides to stay, they must work to rebuild trust while supporting their partner in their efforts to stop gambling. Rebuilding trust could take a significant amount of time, and in some cases, partners continued to struggle with trust issues despite gambling involvement stopping years earlier. In the situation where a relationship ends, property is divided and when children are involved, custody arrangements for the children must be established.

“The family unit dismantles. It can’t sustain being here anymore. That loss of trust is too entrenched now and they can’t get past it. It’s the loss of the marriage and the relationship, it’s the loss of the children, quite prevalently or to a degree because I can now only have them on every second weekend. Depending on if there’s been some domestic violence or drug use or whatever, maybe not at all or maybe supervised.” (Participant 18, Clinician, General Service).

Family violence: The ongoing repercussion of a significant crisis level harm

Violence was discussed as both a crisis and life course harm experienced by both perpetrators and victims/survivors. That is, immediate action was needed at the crisis level, but recovery from violence could take a long time, with some clients being reported as still processing violence and trauma they experienced in their household as children (intergenerational harm).

“I’ve had clients who have described being beaten up by their parents or grandparents because they’re making too much noise when they’re watching a TV programme, watching Trackside for instance, and because of that they go into their own little world. And as adults, when they become gamblers themselves, they will manifest their rage out onto their kids. It’s not just what’s been done to them, but also they’ll express their frustrations and anger on others.” (Participant 12, Clinician, General Service).

For the victim, safely leaving a relationship is a significant life change. For the perpetrator, being charged, having a conviction or being involved in the criminal justice system (e.g., a

prison sentence or protection order) can also significantly change the life course. For example, children may be removed from their home, and there can be community stigma associated with being a perpetrator of violence.

Gambling affecting work and study: Loss of job, change of career, and community stigma

Most participants reported that the loss of a job, incomplete study, taking lower paid employment, and changing career were life changing work/study related harms. At the crisis level, clients' work or study could be significantly affected by their gambling behaviour by the person being absent or distracted at work (i.e., preoccupied with gambling), gambling on phone or laptop while working (i.e., time theft), turning up late or tired after a night spent gambling, or due to theft or fraud of workplace accounts or assets. These crisis level harms evolved into a life course harm when the harms escalated or could not be concealed from their colleagues or boss, and resulted in the loss of job or inability to complete study.

"They're too tired or they need to take more time off... some people go and disappear at lunch time and don't return back to work. Some people... go straight from there [casino] to work and they're in yesterday's clothing, or their clothes are inside their car, so their car is their latest mobile wardrobe. And, of course, disengaging from co-workers, irritable, you name it. That's the type of impact at work, and eventually not showing up on time and then you get fired." (Participant 19, Clinician, Kaupapa Māori Service).

"The inability in a couple of people's cases to complete their study, their degree, so they had to take up or look at other universities to complete their degree or to look in a different field of study..." (Participant 12, Clinician, General Service).

The loss of a job or inability to complete study had several long-term implications. Incomplete study meant that an individual probably had student loans but no qualifications, or had to take a lower paying job or one that they were not interested in. A legacy of having to settle for a lower paying job was reduced savings and potentially hindered aspirations for career progression.

"It becomes the number one focus in people's lives and so work and study aspirations will be secondary... as far as study goes it could potentially affect people's aspiration to study or their motivation to pursue further education because they're fixated on gambling and study isn't something that pays the bills as employment is." (Participant 5, Public Health Promoter, General Service).

A job loss can affect an individual's curriculum vitae and reputation, as it may reduce the chances of receiving a good reference from the former employer, and they would likely be required to disclose to their prospective employer the reason for the job loss. Participants explained that the stigma associated with job loss and problem gambling meant it was likely that future job opportunities would be difficult to attain. This meant that many clients had taken lower paid jobs despite their qualifications. Stigma associated with gambling and job loss had meant that some clients had to move to a different town (particularly when in a small town), to find employment.

“If you get caught stealing money, even if it might be \$20 or something small, that’s going to hugely affect your ability to get another job; you’re not going to get a reference off that place. And if you’re in a small town like where we are in [name removed], people hear about that so then what that does is: it will probably limit your opportunities... that one stupid mistake means that could really affect your future job.” (Participant 2, Clinician, General Service).

“She embezzled a large amount of money. This particular business chose to keep her working there - and they kept it out of the media - and she repaid back all of the money. Then she did it again and for a larger amount... There was a lot of hatred and vitriol towards her. She’d be spat at walking down the street, and so she chose to move away from that suburb. She had to refresh and retrain in her previous career because she wasn’t going to be able to work with money again.” (Participant 6, Clinician, General Service).

In instances where an individual had stolen or defrauded their employer, they were often required to be re-trained or change career, particularly when their job had been in finance. They would also be required to disclose any conviction they received to prospective employers. Changing career, retraining, or taking a lower paid job had long-term implications, including a lower rate of savings, demoralisation about future job prospects, and mental health issues if their previous career had taken a significant amount of study and work.

“I’ve supported quite a few women that have been sent to jail because of their fraud. That’s come down to obviously you’ve now lost your job. A couple of them have been the main earner in the family... Loss of job and the stigma of now having that record. The knowledge of knowing that you probably won’t ever get another job like that, especially if it’s around trusting someone with money, but just knowing that there’s definitely going to be a drop in your pay, or even having to re-think your career path.” (Participant 17, Clinician, Kaupapa Māori Service).

Legal harms: The implications of formal and informal action for the wide-ranging legal cases

Legal life course harms reported by participants were varied and included both criminal acts (e.g., property offences, theft and fraud, assault, burglary, car offences, drug offences, family violence), and civil cases (e.g., property division, custody battles). Often the repercussions of legal harm were significant and could have life-long impacts for the individual and their family. Examples of legacy legal harms mentioned by participants were convictions and jail sentences for theft from employers; money crimes such as theft, fraud and embezzlement; gang involvement; children removed from home due to family violence and neglect; divorce and division of property and custody arrangements; bankruptcy and loss of assets; assault and violence towards other individuals; and convictions and gaol sentences due to drug possession or distribution.

“Usually theft, fraud, bankruptcy would be the main three legal implications from gambling. There can be other things like domestic violence, there could be child safety and that’s going through family court as opposed to the District Court, it could be just violence generally. I can recall one person incurring charges because they lost all their money to a pokie machine, went out to the car, got their tyre iron, and came back and

beat up the machine because they wanted their money back. It's fair to say that they were on methamphetamine and probably had been drinking at the time, but there can be other sorts of violence that happens." (Participant 18, Clinician, General Service).

Regardless of the pathway to crime, participants identified that the legacy impact of crime on the life course was largely determined by whether the crime was: a) dealt with privately and police were not involved; or b) the crime was reported to police. Participants explained that they had worked with some clients where their crime had not been reported; instead, it was dealt with by their employer, church, or family. While this avoided any involvement with the criminal justice system, they still faced significant reputational damage and stigma within their workplace, family and whānau, and community.

"I don't think it's reported at a police level often. I think a lot of employers try and deal with it themselves, and what you see is a lot of those people, the gamblers who steal the money, they're not very good at being dishonest. I don't think they intend to steal the money, it just happens; they get themselves into a hole." (Participant 2, Clinician, General Service).

"If there's fraud in the family, the stress and the depression that comes from this person towards the family. In a Pacific community it's shameful, because it's not just the person, it can bring the whole family down. That's the type of impact, and it can carry on for generations. People will not stop talking about the person and it can impact the feeling of the family, they feel let down." (Participant 15, Clinician, Pacific Service).

The most impactful life course events associated with criminal activity were receiving a formal charge, conviction and prison sentence. The lives of their family and whānau would also be significantly affected by criminal proceedings. Involvement with the criminal justice system could contribute to a cycle of crime and poverty within the family. Although a prison sentence was an appropriate response to some crimes, participants reported that the consequences of a conviction and custodial sentence were wide-ranging. A custodial sentence often resulted in the separation of families (fostering anger in some children); contributed to a cycle of "schoolyard" crime (Participant 17, Clinician, Kaupapa Māori Service) leading to exposure to more serious crimes, learned criminal behaviour, harm, and increased risk of recidivism; and finally, an increased risk for children with an incarcerated parent to also experience a period of incarceration.

"Especially our young ones are thinking, "You broke my family apart. Why would I trust you?" The law. "Our dad doesn't live with us anymore. My mum is crying all the time." It's those sorts of things." (Participant 19, Clinician, Kaupapa Māori Service).

"If they're found guilty and they go to gaol then they're gone – they're not in the family at all anymore and now these children have a parent that's gone to gaol and if I recall correctly – the stats might have changed now – but kids are 17% more likely to end up in prison if their parents are in prison." (Participant 18, Clinician, General Service).

A conviction and criminal record, regardless of whether a custodial sentence or community sentence was received, resulted in psychological and practical consequences. For example, a sentence generated stigma that negatively affected the reputation of the individual and their

family within their community. The conditions of a conviction also had implications for future employment, accommodation and housing, insurance, borrowing capacity, and the ability to travel abroad. Most participants reported that the cumulative effect of harm occurring due to a criminal conviction resulted in reduced opportunities for the individual and their family.

“You can definitely get locked out of countries. If you go to gaol, it can impact on your quality of life; your ability to travel, your ability to take your children travelling, it can even impact on your ability to get work.” (Participant 4, Clinician, Kaupapa Māori Service).

“Once they’ve got a criminal conviction like fraud they’re never going to be in a position of management or it’s going to be highly unlikely they’re going to be a position of management or a position of being in control of money. So, options get more limited...” (Participant 7, Case Worker, General Service)

The behaviours associated with gambling increases the risk of later physical health problems

It was difficult to establish the causal relationship between gambling and life course physical harms, particularly for life changing physical harms primarily related to increased risk of developing health problems later in life. This was contrary to crisis level harms that were easily identifiable by participants and included an inability to afford healthcare services (e.g., General Practitioner, dentist), physical manifestations of psychological health (e.g., insomnia, withdrawn, irritability, tachycardia), nutrition-related harms (e.g., unhealthy food), substandard living-environments (e.g., lack of self-care, cold and damp house), increased use of alcohol and other substances, and a significant lack of physical activity.

For some cases the legacy impact was clear. For example, being unable to afford either preventative or remedial dental work resulted in severe tooth decay and pain, or even lost teeth which resulted in a loss of confidence.

“... loss of teeth even though that’s probably sometimes normal. I would say that has had an impact on the physical, and then the physical could lead onto their psychological confidence and so on. It’s just so intertwined, so where do you start? ... There will be a lot of those – can’t afford it, they no longer take care of themselves... Then of course it leads on their confidence – they don’t feel like they can go and meet to do a job interview or even go and ask for help because they’re embarrassed. I remember seeing the first mum come in and see me, and she’d lost all her teeth and she’d always speak like this [motions hand covering mouth while talking].” (Participant 19, Clinician, Kaupapa Māori Service)

Identifying the transition from a crisis level harm to a life course harm was difficult as the causal link was not direct and, in most cases, long-term health problems were the result of several factors, including lifestyle and nutrition. In many cases, gambling increased the risk or contributed to other factors that were associated with ongoing health problems. For example, inability to afford healthcare services meant that some health conditions went undiagnosed. While the lack of diagnosis and treatment may be attributable to gambling, the condition itself was not. Another example was nutrition-related harms leading to diabetes or other obesity-related conditions. Participants explained that the relationship between nutritional choices and long-term health outcomes could not be wholly attributed to gambling. There was support for

the likelihood that poor health outcomes were not a direct result of the gambling itself, rather the gambling contributed to the later poor health and probably did not contribute to any improvements.

“Can’t say specifically the gambling caused it but it would put them at higher risk of all sorts of health complications, and the affected other as well because they’re under stress.” (Participant 7, Case Worker, General Service).

Reputation damage: Social and cultural capital reduced over time

The cumulative effect of gambling-related harms could affect an individual’s reputation and have long lasting consequences on the individual, their family, and their community. The consequences in this subtheme relate to social and cultural capital, referring to an individual’s ability to be a part of a social group. Behaviours which affected social or cultural capital were those which went against the values of the group. For example, an inability to maintain their role within the family (e.g., financial provider), loss of a respected job, or the dissolution of a relationship. A person’s reputation was tarnished when knowledge of their gambling and associated consequences became public, either within the family or the community. The reputational damage affected self-worth, as well as how others viewed the gambler and those around them.

“It goes right to the heart of someone’s self-concepts and how they can cope and how they view themselves. It’s very confronting to see yourself as a good person, a good daughter or son, a good community member and to have this other secretive part of your life that you can no longer pretend; avoid isn’t there... there’s a lot of shame there and so even if it’s only the family that knows about it; it’s come out to the open, walking down the street there’s a lot of avoidance of looking people in the eye and meeting people walking down different streets trying to avoid people and not looking them in the eye because they don’t feel good about what they’ve done.” (Participant 6, Clinician, General Service).

Gambling affected an individual’s reputation due to the choices they made to sustain it (e.g., stealing from family members, missing events) and the stigma associated with gambling problems when the problem became known. Some participants had worked with clients whose family members had warned others about associating with them.

“Because of the request for money and not being paid back, over time there’s that loss of friendship, and distancing from family members... especially when family talk they pass on information; children do pick up on who to relate to, who not to relate to, because of those types of stresses that come through family. Children are very observant, and parents also deliberately talk to their children about this uncle, that aunty.” (Participant 14, Public Health Promoter, Pacific Service).

Damage to a person's reputation could be substantial and ranged from rumours and minor avoidance within a family, to ostracization, isolation, and having to move suburb or town. Several participants had clients who had changed location as a result of gambling harms and the damage caused to their reputation.

Reduced social/cultural capital and reputational damage was related to the stigma and shame associated with a gambling problem. All participants reported that there was significant shame associated with the disclosure or exposure of a gambling problem. The shame associated

with gambling could outlast the gambling problem. Moreover, an individual's reputation (or how they believed others perceived their reputation), paralleled the level of shame they felt. Participants reported clients stopped attending family occasions, social gatherings, or community events because of how they felt others would perceive them. In turn, isolation and disengagement from family, community and culture occurred. This isolation and disengagement was life changing as it compromised an individual's social support, cultural welfare and cultural capital, as well as their sense of identity.

"Isolation and loneliness. I'm saying that this could be what people fear and find difficult is that they're isolated and lonely in the community and not connected into the family because of their whakamā and shame or because of the judgemental attitudes of people around them." (Participant 6, Clinician, General Service).

Intergenerational harms

Intergenerational harms were discussed by participants as either harms that impacted other generations during periods of active gambling (e.g., inability to afford school resources for children, or grandparents covering the cost of schooling) or those that persisted and affected generations over time, beyond active gambling periods (such as the repercussions of children entering the workforce early to help cover household expenses, or the effects on children visiting a parent in prison).

Participants explained that even moderate to low levels of gambling could have intergenerational effects.

"Even if the person is a mild to moderate gambler, the money's still going out of the family and that time's not being dedicated to be with the partner or the kids, and if that's the person's priority or one of their priorities, I don't think they realise how damaging that is until you take the gambling out of the equation. What you get is the next generation that the kids have experienced this mostly low-level trauma, and it can have a damaging effect going onto them." (Participant 2, Clinician, General Service).

Intergenerational harms discussed by participants included children being removed from their home, financial harms, wellbeing issues, poor parenting behaviour, negative parent-child and future relationships, consequences for children's educational and employment opportunities, increased risk of future physical health problems through inadequate nutrition and limited physical activity, and effects on grandparents. Immediate and intergenerational harm were often connected, as immediate harm could also have long-term consequences. For example, an inability to afford school resources could lead to a teenager having to find part-time employment to cover the cost of their schooling or contribute financially to family expenses, potentially compromising or limiting their ability to receive an education and reducing future earnings prospects.

The term 'children' used throughout this theme refers to the experiences of clients who were either younger than 18 years old, or who were adult clients who had experienced gambling in their household when they were children. In some instances, 'children' also refers to adult children of an older gambler.

Neglect and abuse: Children removed from home

Many participants reported that neglect and abuse were prevalent in households with substantial levels of gambling. Children often witnessed and were victims of violence, were left alone for long periods of time, went without food, and experienced major instability in their daily lives. Instability included not knowing when their parent(s) would be home, frequently moving home, and being unsure of when they would receive their next meal. Many participants noted that children were often resilient and could flourish despite these adversities, but the neglect and abuse associated with some home environments could have long-term repercussions on a child and negatively affect their development.

“Long-term harms are child neglect; child abuse; children witnessing family harm; going without basic needs; food, shelter, all that kind of stuff, and what leads on from that is how they view the world and that’s where intergenerational stuff comes in; it just becomes the normal that you gamble, because that’s what the caregivers do.” (Participant 1, Clinician, Kaupapa Māori Service).

“There’s all those consistent toxic stresses which creates the trauma. If you have one traumatic event and negative toxic stresses going on throughout your childhood, are just as bad if not worse than one big impacting event I believe. It’s just the way, it’s that darkness, living in the cloud; that environment of just negativity.” (Participant 13, Clinician, Pacific Service).

One of the most impactful intergenerational harms was when children were taken into care because of their parents’ gambling behaviour and subsequent neglect. Several participants mentioned adult clients who had either experienced this themselves as a child, or who had themselves had children removed from their care. The removal of a child from the parental home was either through formal channels (i.e., involvement of Oranga Tamariki) or informal (e.g., parents leaving children with grandparents). In most instances, participants who discussed child removal also reported that drugs and alcohol were significant contributing factors.

“Depending on how much harm they have experienced through gambling, you know, the loss of relationships. Sometimes it’s unfortunate that clients lose their kids to gambling because they can’t provide for their kids, the kids have been picked up by Oranga Tamariki and that can have a very strong impact on them.” (Participant 9, Case Worker, General Service).

“The other intergenerational thing is children being removed from the care and protection of their parents... for the parents that have lost their children, it’s the guilt; not being able to protect their children... There’s that, the guilt, shame, or they’re in complete denial.” (Participant 1, Clinician, Kaupapa Māori Service).

Participants reported working with adult clients still affected by, and trying to understand, the experience of being removed from the family home. Affected clients experienced grief for being removed from their parents, anger at their parents’ neglect, and a desire to reconnect with their family. Participants explained that many of those clients sought support for their own gambling and struggled to understand their gambling after the trauma they had experienced as a child as a result of their parents’ problems.

“... [they] have had very traumatic childhoods as a result of the gambling and/or drugs and alcohol. They are quite perplexed about how they themselves would mimic and go on to form that behaviour that they so disliked in a parent or a grandparent or an important aunt or uncle. They’re quite confused and they don’t connect the dots around poor problem solving or poor emotional coping skills or just any lack of neglect. There’s definitely intergenerational facts in some but I don’t really know that we have a very good picture of that.” (Participant 6, Clinician, General Service).

Intergenerational financial harms: Children missing out, theft across the generations, and an inability to accumulate wealth

The main intergenerational financial harm was an inability to afford resources, adequate nutrition, or extracurricular activities for children; particularly significant during active periods of gambling. Resources included school supplies such as writing materials and instruments, uniforms, and sports equipment. The inability to afford quality food affected children’s nutrition and energy levels, contributing to diminished concentration at school; affecting both educational attainment and physical health. Activities for children that could no longer be afforded included school activities such as school camps and trips, involvement in sports teams, and other extracurricular activities.

“The long-term effect on our children, obviously going to school with no kai [food], or not going to school because there’s no kai – that’s the other side of that, as well as not having the correct resources you need to go to school, a basic bag or even a basic book and all those sort of things. It builds into that and our children, long term psychologically, feel so whakamā [ashamed] to go to school, feel so embarrassed and ashamed that when they do go to school they’re not wearing the latest shoes or even a pair of shoes. They’re not taking in bread or whatever is available to them and go on starving... That sets them up to a point where they start to steal – that’s one side.” (Participant 19, Clinician, Kaupapa Māori Service).

The financial consequences of gambling could also affect other generations; for example, a gambler’s parents. Participants gave examples of clients who had borrowed or stolen from their parents, parents who had paid off debt or predatory lenders, or who had covered other expenses such as paying for their grandchildren’s schooling. The impact on the gamblers’ parents was often considerable, as they were usually on a fixed income or pension, and their ability to recover savings was nearly impossible.

“That’s a concern of the grandparents as well. They take that fiscal responsibility.” (Participant 20, Clinician, General Service).

“Not only have you been stealing and lying and putting a wedge between you and your whānau [extended family], but especially for the older generation because we know that the money they’re getting is usually quite limited. It’s not like they can go out and go get another job. Some of them are beyond work, they’re retired... So, you’re actually robbing from our elders to support your habit - and they can’t recoup that money - and now they’re in a bad space mentally and with trust and all of that.” (Participant 17, Clinician, Kaupapa Māori Service).

The above-mentioned financial harms were primarily those that affected different generations while the gambling behaviour was still present. Financial harms could also have life course implications despite the cessation of gambling involvement. Many participants reported that

one of the main financial intergenerational life course harms was the poverty cycle and lack of wealth created by gambling. That is, the long-term financial consequences meant that there was an inability to save over a lifetime and/or accumulate non-cash assets (e.g., a family home, investments) that could be sold to fund retirement or passed onto the next generation.

“If you’re never in a position to buy your own home because you gamble, then you’ve got no home to pass onto your children... those children are then set up on the back foot, because they don’t have the wealth coming into their lives at the right time, that I would have, or somebody else would have who’s a non-gambler. All that needs to happen in the first generation and that can have a snowball effect all the way through to third, fourth and fifth generations, because you never had that wealth in the beginning.” (Participant 3, Clinician, General Service).

Several participants reported that many clients expressed a desire to financially support their children; however, inheritance or savings for retirement was an atypical concept for them. That is, the cycle of poverty that many client’s families experienced, meant that there was an inability to save and requiring welfare was the norm.

“Again, our children, especially if their parents are on benefits, grandparents, parents and so on. It just becomes the norm in that space and I listen to that, “Oh yeah, my parents did it. They lived okay, it’s all good. I can see that too.” (Participant 3, Clinician, General Service).

Emotional and psychological pressure on children: Anxiety, shame, and parentification

The emotional and psychological wellbeing of children could be significantly compromised by parental gambling given their exposure to substantial instability (financial, emotional, housing, and relationship instability). This affected children’s wellbeing, increased anxiety and altered their worldview.

“A very common mental health issue that I think is linked to intergenerational harm from gambling is anxiety. These clients have talked about how not having that right kind of support or having those gaps in being raised as kids and having that environment where they were given the time and attention and love and affection which is very, very important for a child’s growth. Because they have not had that, those gaps, those voids, stay with them for a longer time.” (Participant 9, Case Worker, General Service).

“It affects the stability of where they are living. The family might have to move house several times, so that affects the children’s education. It can also affect their health because if parents can’t afford to take them to the doctor; it becomes that vicious poverty cycle. It affects clothing, as well. It also affects their emotional welfare.” (Participant 20, Clinician, General Service).

Children also experienced a considerable amount of embarrassment and shame, which stemmed from their parent(s)’ inability to afford comparable items or activities to their peers, going to school with little or no food, or living in a house that was not well maintained. Participants also identified a reluctance for children to invite friends over to their home, contributing to social isolation.

“Intergenerationally, you could think of the situation where little Johnny was to invite his mate home after school one day, and nah, because they’re broke. There’s nothing there, and he’s too embarrassed and shameful to bring his mate home. The ramifications of that... Again, that relates back to shame and guilt; the emotional stuff that goes with it. The idea that it’s the big family secret... The shame and guilt. It doesn’t matter what the origin is.” (Participant 3, Clinician, General Service).

Another major consequence on children’s wellbeing was the process of role reversal whereby children had to take on the role of a parent (i.e., parentification). Examples included young children preparing dinner, teenagers working to support the family, or children looking after siblings while their parents gambled. Another example was when a child established behaviours to mitigate the likelihood of parental conflict or acted as a peacekeeper when conflict occurred.

“We don’t get to work a lot with the children but certainly the children that I have seen who have been around 14 years of age or so; 12 or 14; they talk about not wanting to create any pressure on their parents and therefore tend to go without a bit. They might not ask for money for school excursions or the different things their friends might have. That sense of peace keeping and not wanting to create tension or distress in the family and so keep their needs hidden.” (Participant 6, Clinician, General Service).

Gambling impacting parent-child and future relationships

The long-term relationship harms discussed previously also had intergenerational implications. Relationship instability, volatility, and separation/divorce affected clients’ children and parents. Relationships with children were substantially affected when a separation of parents or divorce occurred. Additionally, a couple of participants had clients who were separated due to one parent serving a gaol sentence or were unable to return to the community where the other parent lived. The children had to adapt to a new way of living, either splitting their time between parents or living solely with one parent while navigating complex emotional trauma that could persist well after the divorce had been finalised. Child/parent relationships were commonly reported as fractured because of the gambling or the subsequent relationship instability. For a child, it was often the relationship with the parent whom they viewed as responsible for the relationship breakup (i.e., the gambler for their gambling, the spouse for not supporting the gambler) that was negatively affected.

“Children are really sensitive to what’s going on in a parental relationship. Emotionally I can’t quantify it. Coming from that uncertain background of gambling, or the addiction, plus also strains in a relationship, it can rub off on children and their relationships and how they relate to people. It can also divide them. They might love their father and also love their mother but feeling torn with this is what dad is doing to mum by gambling; or this is what mum is doing to dad by gambling. That’s hard on a kid to try and have to choose – even if it’s just in their mind.” (Participant 20, Clinician, General Service).

Most participants had experience of adults who grew up in households with a high level of gambling. Gambling negatively impacted on their relationship with their parents, often due to neglect; affecting the child’s sense of security and trust in other people. In turn, these clients often experienced ongoing relationship harms due to development of insecure attachments in

their own relationships later in life; often characterised by instability, anxiety or avoidance, or replicated their parent's dysfunctional relationship.

"... there's definite issues around attachment and also around addiction and trauma; for example, there's people that I've worked with that have prioritised their gambling, what's happened is that children have been passed around, so they might be taken over here and over there so that they [the parents] can engage in gambling, and these are small children... It makes them vulnerable to attachment disorder and possible trauma because there's potentially not safe eyes on them all the time, and other addiction issues as coping strategies to keep them going." (Participant 4, Clinician, Kaupapa Māori Service).

Limiting choice: The impact on children's immediate education and long-term job opportunities

Gambling had both short-term (e.g., unable to attend a school camp) and long-term (e.g., university aspirations unable to be fulfilled) implications for children's study and future employment. School-age children's education was most affected by a lack of resources and an inability to concentrate whilst at school. Participants described how some of their clients' children or those who had grown up with gambling in their home had attended school without shoes or proper uniform, without textbooks or writing instruments, or had missed school camps and other extracurricular activities.

"The loss of income and having to go without or trying to figure out how you're now going to cover all of this and keep everybody happy. Obviously, someone's going to miss out on something, and it generally will be the kids. Just not having the basics. Not even having lunch. Not even having the proper clothing or shoes and that's when we get requests around, "Can you help me with the paperwork for the Variety Club? Can we try and get a uniform?" things like that. They've never been on holiday. That's normal for a lot of our whānau, they've never been on a real holiday." (Participant 17, Clinician, Kaupapa Māori Service).

Concentration at school was affected by inadequate nutrition and/or a child's attention being focused on the instability at home, their own anxiety, or their parents' wellbeing. The effect on their concentration meant that a child's ability to study and retain information was compromised.

"Will definitely affect the capability of our children studying or working because of the way our parents take advantage of the young people. Taking money away from them and using it for something not worthwhile for the family... We parents, we put aside money for our children for school. But then when gambling came it disappeared. We used the money to gamble and the child probably doesn't get her book or stationery for certain period of her school days. It leads from that, little by little and the next minute either he or she doesn't go to work again and the child they lose a lot of concentration with schoolwork." (Participant 16, Clinician, Kaupapa Māori Service).

Children's education and work prospects could also be affected by the attitudes or the requirements of their parents and family. Such early learning environments could create a perception that further education was a "waste of time" (Participant 19, Clinician, Kaupapa

Māori Service) affecting children's attitude to work and study. Participants gave examples of children's educational aspirations being reduced by a lack of support from their family and the necessity to earn money to cover household expenses. Reduced aspirations meant that some children entered the workforce early on minimum wage instead of attending university or gaining a trade qualification.

"If parents don't have enough money, that's obviously going to affect the children in a number of ways. It will affect their material needs and also affect their feelings around money and securities around money and their ability to fit in with their friends and all those kinds of things. Long term, it might affect their ability to engage in their aspirations like going to university or doing something out of want rather than being pressured by finances." (Participant 5, Public Health Promoter, General Service).

Reduced education meant that a child's options became limited and they had little choice over what jobs they could do. One participant gave an example of a high school student who worked every day after school to financially support their family. The student was motivated to attend university but due to their home responsibilities, grades dropped and they were unable to afford tuition, even with the support of student loans, making higher education an implausible option.

Intergenerational physical harms: Inadequate nutrition, physical activity, and behaviour modelling increases the risk of later health problems

Similar to the life course physical harms experienced by gamblers, intergenerational physical harms were difficult to identify. While some immediate harms were relatively straightforward (e.g., inadequate nutrition, lack of physical exercise), effects across time were related to increased risk of developing further issues rather than a clear relationship with a specific health problem. Intergenerational physical harms discussed by participants primarily related to children's inadequate nutrition, physical activity, and modelling of unhealthy behaviours. As discussed earlier, nutritional health was largely affected by the financial capacity of a family, affecting the child's physical health and concentration at school. Participants suggested that poor diet could have long-term malnutrition consequences such as obesity, cardiovascular diseases, diabetes and osteoporosis.

"If you've got a young child whose diet is two-minute [instant] noodles, because mum and dad spent the food [money] on gambling, well, the evidence is pretty clear if you don't have a good nutritional diet when you're young, that affects you on so many levels – brain function, physical growth and the whole nine yards." (Participant 3, Clinician, General Service).

Lost time with children/parents as a result of parental gambling and the modelling of unhealthy behaviours were reported by many participants as intergenerational harms that could contribute to poor health outcomes. Time spent gambling precluded time spent on physical activities, or attending or taking children to sporting events.

"I remember one person talking about his father had been a gambler and he would go to the TAB [betting shop] on a weekend. Most weekends he would promise that he would do something with his son - who was a person I was seeing, and he wouldn't keep the promise. He'd just see his dad basically driving off to go gambling." (Participant 8, Case Worker, General Service).

“There’s the modelling; if as a kid you’ve seen dad spending two or three nights down the pub eating shitty food, then of course that’s going to affect you... what you see as being normal, and it’s probably not until you’ve actually distanced yourself from your family you start to see the bigger picture and what is healthy and what’s normal.” (Participant 2, Clinician, General Service).

Spending time outside was particularly important for some participants. One reason related to children’s attachment to devices and gaming that was often unmonitored, and was thought to mirror adult gambling behaviour. Less time outside also resulted in a disconnection from nature and the outdoors, and could have negative implications for both physical and mental wellbeing. A few participants explained that childhood mental and physical wellbeing of Māori and Pacific clients had been significantly affected by this disconnect from nature as a result of the parents’ gambling. Participants from Kaupapa Māori services explained that cultural practices emphasised the importance of a connection to nature and, thus, as part of their intervention they often took clients into natural environments. Reconnecting with the ocean was an important part of their intervention process for some clients.

The impacts on the parent/grandparent generation

While most intergenerational harms were related to children and adolescents, participants reported that the gambler’s parents were also affected by their child’s gambling. For young adult gamblers, parents were described as having to rescue their child, often financially by providing a place to stay or food to eat. Some gamblers also stole from their parents and many parents who had a child with a gambling problem felt a significant level of responsibility and stress, despite their child being an adult.

“You’re never certain when you’re going to be landed up, as a parent, with another demand for money to bail them out. Can I bail them out? As a parent, I might know the right thing and what I should do is set that boundary and say no. Part of me realises that but, as a parent it’s incredibly hard to go, “No, I’m not going to bail you out again.” Then you have this plea, “These people are going to beat me up because I haven’t got the money to pay them back.” What do you do as a parent? Or, “Well, if you don’t give me the money I’m going to kill myself.” Or, “If you don’t give me the money then I’ve got nowhere to live, I’ll be living on the streets.” No-one wants that on their conscience as a parent... Every parent wants to help their kid. Well, some of them don’t, but most parents want to help their kids; whether that kid is a teenager, in their early twenties, or in their fifties. It’s a human response.” (Participant 20, Clinician, General Service).

A few participants reported that they had worked with clients who had taken custody of their grandchildren when their child (adult gambler) could not look after their children. In most of these cases, the custody arrangement had been unplanned or unexpected. For instance, in one example provided, a grandparent who expected to look after their grandchildren for a weekend during the school holidays ended up taking full custody of the children over the subsequent months after the child’s parents did not return.

“I was talking with a nan who was bringing up her three grandchildren and she said the seven-year-old she found really frustrating because she’d tell her it’s time to have a shower, and she’d go and have it - and she’d find her in there just standing there. She

said she doesn't do anything, she just stands there. I said, "Well she might not have been taught how to actually shower herself." And I think that was the problem, she didn't know that this is how you wash yourself, and this is how you do your hair, and they were full of head lice when she got them. So, it's the little basic things that some of us take for granted." (Participant 1, Clinician, Kaupapa Māori Service).

Grandparents taking custody and care of grandchildren was described by participants as a significant, life changing, and unexpected event. They explained that, in most cases, clients had entered retirement and were not expecting to raise children. Doing so took an emotional and psychological toll as they adjusted to the upheaval; a practical toll as they navigated modern schooling; and a financial toll with unanticipated expenses involved with raising children (e.g., education, extra food, extracurricular activities, and clothing).

"They've done their time raising children; it's a time in their life where they're supposed to be having some time for themselves and now they're bringing up young children again. It's really stressful for them, and for whatever reason they may not have had the best parenting skills themselves, and if they haven't done any work on that then they going to parent their grandchildren like they parented their own children." (Participant 1, Clinician, Kaupapa Māori Service).

The Interrelated Nature of Life Course and Intergenerational Harms

Life course harms, being negative consequences that permanently affect a person's health and wellbeing, necessarily impact on future generations. At an individual level, the lifetime financial impacts of gambling, in terms of reduced wages and missed vocational opportunities, can affect the resources that are available to a family, and consequently impact on children's future achievements and life outcomes. At a societal level, a legacy of gambling harm in the community can impoverish the environment for future generations. In fact, participants explicitly endorsed environmental harms and community harms when asked about the legacy of gambling problems.

Harms to the Environment and Community

Harm to the environment included harm to the surroundings, including animals and plants, or conditions in which people live or operate. This included the notion that the gambling industry (particularly land-based casinos, but also pubs and clubs) creates and perpetuates structures that physically block out sunlight from public spaces, for example, contributing to "An environment that's just closed curtains, no natural light, and no sunlight... the world becomes smaller because of them [gambling operators]" (Participant 11, clinician/practitioner, general service). Legacy environmental harm was linked to cultural harms to the extent that gambling can alienate people, families and whole communities from traditional engagements with, and obligations towards, the protection of our natural environments such as waterways.

"People from the Pacific, we're born from the water, that connection even to the water. We do things like 'pure' [practices to remove conditions that necessitate restricted water use, e.g., pollution]. As an organisation we will take whānau back down to the water to reconnect... being from the Pacific, that's what connects all of us, it's the water." (Participant 15, manager, Kaupapa Māori service).

It was noted that gambling venues could place excessive demand on local resources (e.g., water and transport systems due to increased tourism). ‘Environment’ could also refer to the living situations that may occur for families due to long-lasting reduced financial status. For example, reference was made to reduced cleanliness and ‘hoarding’ as responses to intergenerational poverty linked to gambling harm. Some participants referenced the idea that gambling contributes, alongside many other social issues, to a ‘culture of poverty’: a kind of environmental milieu characterised by the normalisation of hopelessness.

“This [deprived area of Auckland with high concentration of EGM gambling venues] is not an environment that has a bit of hope and a bit of warmth or spark, it’s just a real grind... It [gambling] normalises the despair I suppose and the real stress of everyday life. It’s just not like you and I... being able to get up and jump in a car and go somewhere.” (Participant 4, clinician/practitioner, Kaupapa Māori service).

According to participants, harm to the environment could also encompass “the macro; the government policies” and democratic processes that were seen as affected/co-opted by the gambling industry. That is, even in the absence of harm directly related to gambling problems, the redistribution of wealth caused by gambling creates inequities. Further, gambling grants perpetuate a false narrative around the industry’s community benefits.

“The [gambling] societies give the money out. In that macro environment we’ve got to say that their involvement in that is not okay... The justification is that it’s fun to see little Johnny with a new shirt. But if they didn’t gamble they’d be able to buy one themselves... We’re allowed casinos; the government said it’s all right. [city name removed] City Council said it’s okay; you know? It’s fine. They [gambling industry] work that out, and they’re setting up our society to pay it.” (Participant 11, clinician/practitioner, general service).

Harm to the community included the belief that gambling venues targeted vulnerable communities. The inequitable distribution of gambling opportunities in lower income areas was cited as contributing to life course and intergenerational harms at individual, family and community levels, particularly in terms of maintaining a cycle of poverty and constraining community development.

Life course and intergenerational harms affecting different ethnicities and communities in New Zealand

Despite all participants indicating that life course and intergenerational harms were universal, pervasive and non-discriminatory, there were unique factors that could exacerbate the harms for Māori and Pacific families and communities. These harms included Māori values being eroded over time by gambling (at individual, family and whānau, and community levels), obligation and the desire to contribute to a good cause in Pacific communities perpetuating harm, the intersectional nature of ethnicity and inequality being compounded, and the targeting of lower socioeconomic communities with the proliferation and availability of gambling products. No specific Asian life course and intergenerational harms related to gambling were reported.

Māori values being eroded over time: Identity, cultural concepts, and community development negatively impacted by gambling

Participants from Kaupapa Māori services reported that they had witnessed erosion of Māori values over time, affecting engagement with cultural practices, cultural identity, and ability to pass on knowledge to future generations. Damage to Māori values could occur at: (1) an individual level through the loss of mana [prestige, status, spiritual power], cultural identity and aroha [love], and the increase of whakamā [shame, embarrassment]; (2) at the whānau level through the increase in individualisation and the altered meaning of important concepts such as koha [gift, offering, contribution in reciprocity]; and (3) at a community level through negative effects on kaitiakitanga [guardianship], hindered community development, and a persistent poverty cycle. For each of these, isolation and disengagement from cultural practices was prevalent.

At an individual level, participants explained that over time, gambling reduced mana and eroded an individual's sense of identity. This contributed a shift in identity to the point where the individual no longer recognised who they had become. Gambling also reduced a client's aroha for themselves, which was evident in their lack of self-care. As a result, individuals distanced themselves from their family, whānau and community, fostering isolation and further damaging their sense of identity. Many Māori clients have reported a loss of identity and a desire to reconnect with their cultural heritage. However, the significant whakamā associated with gambling meant that it was a struggle to recover from the disengagement and isolation. As highlighted in the first quote below, an intergenerational consequence of this harm related to the inability to pass cultural values and concepts to the next generation; creating further distance between an individual, their family and their cultural connection.

“Manaaki, caring for others; that’s definitely eroded in terms of their wairua [spirit], sitting in those pokie dens and the walk of shame as you leave. Aroha, they lose that for themselves, self-care, self-respect, self-love, it feeds into family violence, overburdening some in terms of caring for whānau, extended family; quite often it falls onto one or two people. They just lose contact with so much... And it’s not passed down to the next generation. So the next generation is even further connected or disconnected to their culture.” (Participant 1, Clinician, Kaupapa Māori Service).

“You don’t want to participate in life. You’re doing it to survive it. You disengage from everything – family, social, community, and then what happens? You will either fight for the community or just survive and wait to die.” (Participant 19, Clinician, Kaupapa Māori Service).

Participants explained that traditional Māori whānau concepts were eroded or altered by excessive gambling behaviours. One participant explained that over time there had been a transition to individualism with a growing emphasis on the individual rather than the whānau. Parallel to this, the value and importance of money had fostered an individual wish to succeed. Although gambling was considered not to be directly responsible for this, it contributed to it by fostering a desire to win, and the only prize worth winning was money. This shift to individual monetary gains related to the concept of koha. Koha had been transformed from an act of reciprocity based on an event (e.g., bringing food to a tangihanga [funeral]) to being primarily money based. Instead of bringing a koha, fundraising opportunities via gambling were

becoming more popular. Gambling as a method of fundraising and the normalisation of gambling had contributed to the changing perception of money, community and koha.

“If you look on the opposite side of the coin, koha is given, gambling is giving something up for stakes. As I said, when we used to fundraise or koha, it lost the meaning culturally. We’re giving a gift versus let’s put something up and play cards to win it and all the money that goes into it. That’s fundraising, different again... It’s lost its meaning. Even for ourselves, even the word koha has lost its true meaning. You never put a price tag on a koha, but on this day and age there is... they actually tell you what it is. Koha is a gift of whatever it is.” (Participant 19, Clinician, Kaupapa Māori Service).

“I have worked with a couple of Māori clients who had tangi[hanga] to go to, but couldn’t go because they didn’t have the koha, and couldn’t get koha. They were that embarrassed and that shamed about it that they decided not to go.” (Participant 3, Clinician, General Service).

At a community level, participants reported that individual, family and community development was hindered by gambling. A few participants reported that the harms from gambling paralleled ongoing effects of colonisation, whereby gambling products represented an introduced activity that contributed to the poverty cycle and oppression experienced in Māori communities.

“Poverty for the individual and poverty for the family. This might be a tricky subject, but when you look at all of the Māori models of wellbeing, one of the things that they take into account is the effect of colonisation. One of the big things with the effect of colonisation is the absence of generational wealth, as distinguished by land ownership, is the common go-to. It’s exactly that, that gambling erodes –generational wealth. If mum and dad have spent all their money gambling, there’s not going to be an inheritance for the kids. The question then becomes, “How much of that is an effect of colonisation, or how much is it the effect of gambling?” and we don’t know.” (Participant 3, Clinician, General Service).

An important part of hindered community development related to money being taken out of the community but not returned in an equitable way. That is, the amount of money spent on gambling activities in lower socioeconomic areas did not appear to match the distribution of gambling community grants to those areas. Many participants reported that electronic gaming machines (EGMs), one of the more harmful forms of gambling, were found primarily in lower socioeconomic areas which had a greater proportion of Māori and Pacific residents. Participants explained that the placement of EGMs in lower socioeconomic areas enhanced accessibility and contributed to inequality; further compounding the impact of colonisation.

Obligation and giving to a good cause perpetuates harm in Pacific communities

In Pacific communities, gambling activities were used to raise funds for community groups or churches. Fundraising had become an embedded part of Pacific events, and the culture of obligation and community meant that individuals and families often felt required to take part. While gambling itself was not an inherent part of Pacific culture, gambling (in particular, housie/bingo) as a method of fundraising and contributing to the community, was common practice. The participants further explained that it was the foundation of Pacific culture (i.e.,

respect, family, collectivism and community, spirituality and reciprocity) that motivated individuals and families to take part in the fundraising gambling activities.

“The only thing is not to say that it’s the culture; it is not the culture, but because Pacific culture is a collectiveness, that is why there’s an impact, and it’s not a culture to say that you must put in, but it’s a culture of how people come together to support something.” (Participant 15, Clinician, Pacific Service).

A sense of obligation to the community meant families spent more than they could afford and were caught in a cycle of harm. That is, gambling was not part of their culture; however, important cultural concepts contributed to the motivation to gamble and the experience of harm.

“It does have an impact on cultural practices also, being Māori and Pacific. With our Pacific whānau, there’s an obligation. Church is an obligation, so somehow it weaves into that space where for Pacific whānau and even for a Māori whānau, fundraising. They put it [gambling] under the word fundraising. But this type of fundraising or activity affects in a way for our Pacific whānau is that obligation and that being shamed if they’ve got to help fundraise, they’ve got to help whatever their last dollar is to whatever particular kaupapa is going on whether it’s a funeral or if it’s tithings at the church.” (Participant 19, Clinician, Kaupapa Māori Service).

Participants explained that the sense of obligation perpetuated the harm associated with gambling and contributed to the experience of life changing and intergenerational harms. For example, harm experienced from gambling was often hidden by community members so they would be able to continue participating in community events. In other cases, because the gambling fundraising was for a good cause, families overlooked the harm they were experiencing, resulting in life changing consequences.

“They don’t look at harm. They celebrate it [gambling fundraising] and think, “we’re part of that good cause”, and at home they sort out the harm themselves. It’s that core belief in people’s minds, “we’re giving to a good cause”, because it’s a cause for the church, and expect there will be more blessings poured upon them, but they don’t know there is harm in it.” (Participant 15, Clinician, Pacific Service).

“Though we go and support an [gambling] activity to raise funds, you’d hope that this activity doesn’t impact hugely or negatively on families, but you don’t know until you discover somebody who needs help, or someone knocking on your door and needing help, and by then it’s possibly too late... the gambling addiction is not so obvious to the naked eye. It’s like a hidden addiction, and not obvious like you’re taking drugs or alcohol and you see someone wavering in their walk, or driving crazily, but with gambling addictions it’s well hidden, and it can be hidden for a long time before it’s discovered.” (Participant 14, Public Health Promoter, Pacific Service)

Ethnicity and compounded inequality

Several participants discussed the intersectional nature of ethnicity and other factors that exacerbate life course and intergenerational gambling harms. Māori and Pacific individuals and families are generally overrepresented in indicators of inequality: health and wellbeing (e.g., life expectancy, smoking, obesity, comorbidities), education (e.g., high school completion, tertiary education), paid work (e.g., employment, earning potential, benefit

receipt), standard of living (e.g., socioeconomic status, household ownership) and other factors such as involvement with Oranga Tamariki or the criminal justice system.

“If we take Māori, for example, we’re really pushing it because we are already in a deficit space. Not everyone, but generally financially. If we throw gambling in the mix, this is where we can have some terrible generational impacts because of the lack of finances, the lack of care, safety, having your base needs met... For Māori, they’re very vulnerable and more susceptible to generational harms and they’ll be more severe; they won’t be as easy to get over or get through than they might be for other people. There’s a really important thing that I would like to be noted, that for Māori and maybe our vulnerable communities – not just Māori but maybe your working-class poor or your people on benefits – it’s the finances, that’s a big one, but it’s also the other bit that goes with it, the relationship stuff, the attachment things and feeling safe.” (Participant 4, Clinician, Kaupapa Māori Service).

As discussed throughout this section, life course and intergenerational harms were associated with many indicators of inequality. Participants explained that although gambling might not directly contribute to the inequality, it could exacerbate it.

“That is an example of the long term, before they started without any health problems but now has liver problems with the two co-existing addictions; so those are some of the long term, especially with Pacific people, because their life expectancy is shorter than other groups.” (Participant 15, Clinician, Pacific Service).

Life course and intergenerational harms resulted in greater negative consequences for Māori and Pacific individuals and families, compared with individuals from other ethnicities. One participant gave an example that Māori were more likely to be involved with the criminal justice system by having a conviction and prison sentence. Participants identified an element of racial bias as most of the clients they had worked with in prisons had been Māori, who tend to have higher rates of incarceration for gambling related offences. While Iwi community panels²⁵ were reportedly trying to ameliorate racial bias within the criminal justice system, it remained that a greater proportion of Māori would be arrested, charged, convicted and incarcerated than other ethnicities.

“Unfortunately, Māori and Pasifika make up the majority of my clients in prison... I think culturally wise, Māori and Pacific seem to be particularly vulnerable and are sentenced to prison when I have noticed other ethnicities either haven’t been sent to prison or have received a shorter sentence for a very similar offence. This is to do with fraud and theft. And women even shorter sentences if they even do end up in prison for fraud or theft... I’ve also seen men in prison for very similar offences get twice as long conviction. I think there’s a bias, discrimination within the justice system, and from research that’s been proved true as well.” (Participant 12, Clinician, General Service).

Socioeconomic status was given as a reason for perpetuating gambling-related harms in Māori and Pacific communities whilst also acting as a buffer in communities with high socioeconomic status. Individuals/families with more resources take a longer time to reach the level of harm

²⁵ Iwi community panels are a supported resolution process for low-level offences. The focus is on education, prevention and accountability.

and poverty compared to those with fewer resources. Greater resources can also provide greater accessibility to services or resources that can assist recovery or mitigate harms (e.g., private counselling, lawyers).

“It’s more that there’s different ethnicities that might be more in a financial situation to pay them out of the hole they just got themselves in. If I think of some younger people who might not have quite got into the getting married and having children stages who have got themselves into trouble at work, from using work money or work things and parents have stepped in and paid it out for them to try and avoid any criminal charges or going to prison... And sometimes it can be a cultural thing around where the poverty line is, that they might want to do that with all their heart but they don’t have the finances to pay back a \$50,000 debt or a \$100,000 debt that somebody’s incurred by gambling.” (Participant 18, Clinician, General Service).

Targeted community harm: Money taken out of a community and not returned equitably

A life course and intergenerational harm discussed by participants was harm to communities, centred on the collective harm caused by gambling products, rather than an individual or family level harm. This related to money being taken out of the community by gambling and not returned.

“It’s taking money out of the communities where they’re targeted in forms of community grants; but how much of that goes back to where the money’s come from... Not many whānau out there who can apply for a community grant to put food on their table.” (Participant 1, Clinician, Kaupapa Māori Service).

Participants explained that although the Gambling Act required grants be made available to communities, it was often not the neediest communities that received the funding.

“All of this despair is hidden very, very well under the guise of community funding and all these wonderful things that happen for our community and it’s really immoral. We’ve got communities with pockets of people living like this that nobody sees and they probably think nobody gives a crap about.” (Participant 4, Clinician, Kaupapa Māori Service).

In this instance, participants reported that the harm was a life course and intergenerational harm as it contributed to the poverty cycle experienced by lower socioeconomic and less-resourced communities. For example, sports clubs and communities with greater access to resourcing for grant applications were more likely to receive funding than smaller or lower socioeconomic communities. Some participants explained that as part of their service, they support individuals, families and community groups to submit grant applications as a way to ameliorate the harm.

“We noted from the recent review of the gaming machine policies... the Pacific community has shared to the council that all the money the gaming machines take out of [town removed], and not a lot was coming back to [town removed], and that’s because Pacific Islanders weren’t applying for it, and you’ve got to ask the question “why weren’t they applying for it?” That’s because they don’t even know about it, and don’t know how to access it. You could see that the only groups that were applying for

it were professional sporting groups.” (Participant 14, Public Health Promoter, Pacific Service)

Interventions and addressing life course and intergenerational harm

Life course and intergenerational harms could be addressed in multiple ways. Some participants did not have a specific approach for addressing such harms but instead, would adapt interventions to accommodate each client. The use of varied and flexible interventions was important, as participants noted that working with people who experienced long-term gambling harm was complex and often included consideration of the role of relapse and co-occurring mental health issues and substance addictions. Nearly all participants reported that as life course and intergenerational harms were entrenched in an individual’s or family’s life, a long-term approach was important. The approaches used were discussed at micro (individual, family/whānau), meso (community and social group), and macro (political and social norms) levels. Additionally, approaches specific to Māori, Pacific, and Asian people were discussed.

The complexities of dealing with life course and intergenerational harm

Relapse was common and often contributed to life course and intergenerational harms, adding to the complexity of addressing gambling problems. Participants explained that when a relapse occurred, it could be viewed as a significant setback by a client as well as their family and whānau because gambling in the present added to pre-existing harms accrued from previous gambling episodes. Following a relapse, participants reported that family members and affected others were increasingly disillusioned, frustrated and discouraged. The frustration was often exacerbated by a limited understanding of gambling problems.

“A lot of other family members would question, “Was I not good enough?” or “what did I do?”, or “what did I not do for you to look at gambling? Were you not happy with that relationship?” They start associating gambling to themselves. It becomes more like a personal attack for them. I think that’s the biggest and especially they find it so hard when gamblers have relapse after relapse. They lose that hope. They lose that hope completely when they have to go through that relapses and readjust and support that partner or that family member, or that friend, or that employee.” (Participant 9, Case Worker, General Service).

Despite the harm experienced by family and affected others, they only made up a small proportion of participants' clients and often only attended one session. Most participants preferred a family and whānau orientated or holistic approach to intervention provision, and therefore considered the lack of family and whānau engagement to increase the complexity of gambling cases.

Micro-level interventions: Working with individuals, families and whānau to address harm

As life course and intergenerational harms occurred over a long time, a long-term approach was required. Many participants explained that the limited number of sessions they could offer was not always enough for clients. Participants could follow up with clients but after 12 months clients were no longer considered “on their books.” A few participants continued to meet with clients once or twice a year for several years. However, the limited counselling time frame created a certain amount of pressure to deal with immediate issues, meaning that some long-

term harms might not be prioritised. A strengths-based approach meant that participants could address the gambling behaviour, the cause of the behaviour, and implement a plan for a client and their family.

“Strengths-based and cognitive behavioural are really commonly used by myself so identifying any unhelpful thinking styles that are not encouraging individuals to have less anxiety; to have greater wellbeing and to challenge those cognitions that could lead them back into old unhealthy habits. Motivational interviewing’s used a lot because it’s a lot about weighing up on the one hand what you feel good about and on the other hand what you struggle to address. Just life-long change; different layers of the onion. Multiple approaches are used really.” (Participant 6, Clinician, General Service).

“The biggest issue is the expected timeframe that our whānau are meant to recover... This addiction has grown to become a part of their life, of their family, and to say, “We can only engage with you for this long,” it does not work. It’s not about enabling behaviours to continue or the expectation that we’re always going to be there; it’s more about if it took 20 to 30 years for you to have this addiction, it’s probably going to take a little bit, not that long, but a little bit of time to try and sort through what it is underpinning and informing your gambling why you think it’s okay.” (Participant 17, Clinician, Kaupapa Māori Service).

Meso-level interventions: Working with families and communities to address systemic harm

All participants reported that it was important to work with families and communities to address life course and intergenerational harms. Community health promotion was an important part of services connecting with local people and increasing awareness of services. It differed from public health promotion as it was more focused and catered to a local community.

“It’s generally based around community health, and I’m trying to run community and culturally based activities that will allow a conversation around harm minimisation from gambling. That’s a tough question to raise with our community because it can come across as a blame topic; we are the professionals and you guys are the baddies. We’re trying to create activities that are going to inform them, but yet know that these activities are legal activities.” (Participant 14, Public Health Promoteor, Pacific Service).

A Pacific service described public health work to combat the legacy community harm of money taken out of the community (by earlier gambling) not being returned to the community. This involved individual, family and community workshops where attendees were supported to learn and understand how to successfully fill out a community grant application. People in this community had limited resources to enable completion of grant applications, thus, assistance with grant applications meant that there was a chance of accessing some of the money that might otherwise have left the community.

“I’m trying to introduce the generosity database, for Pacific communities, about how to fill in a form, and that’s the challenge for those who are not equipped with form filling... Some people find it a challenge, because there’s quite a few hoops to jump through to get your application completed, but once you get familiar with the routine of form filling, they’re pretty much all the same. Essentially, they need to learn how to form relationships with funders, and report back on those funds they’ve managed to receive,

and have a routine in their calendar, to access those funds on a regular level at a regular time, so that when an activity does pop up, they're ready to apply. Those are good community skills they could have and should know about." (Participant 14, Public Health Promoteor, Pacific Service).

Macro-level interventions: Public health promotion, raising awareness and primary prevention

All participants' organisations took part in gambling harm minimisation and public health promotion work, which aimed to influence attitudes and raise awareness of gambling harms. This included national advertising or awareness raising campaigns and engagement with community leaders to address social or cultural norms. Such public health strategies addressed life course and intergenerational harms through mass engagement and the ability to reach and influence a diverse and substantial number of people. Participants reported that from their campaigns, individuals and/or families identified the harms they had experienced and sought assistance.

"The good thing that we try, four or five times a year we go out in the community and do some promotion or just go outside in the community and talk to people. This is when people come in [engage with the service]." (Participant 16, Clinician, Kaupapa Māori Service).

Macro-level interventions: Advocating for change in legislation and social norms to address harm

Macro level interventions included advocating for legislative and policy change (e.g., greater enforcement of host responsibility) and addressing social and cultural norms that promoted gambling. There was strong motivation to advocate for policy change and address legislation that contributed to problematic gambling and life course and intergenerational harms. In particular, participants wanted legislation that addressed the location of gambling venues. The long-term negative effects of having more gambling venues in lower socioeconomic areas compared to higher socioeconomic areas was emphasised. Participants believed that if the number of EGMs available in communities were reduced then, correspondingly, life course and intergenerational harms would also reduce. However, changing the legislation would not address all gambling harms, particularly due to the availability of overseas online gambling.

"When it comes to the legal obligations for our people... It's just a joke. It sets up the stage for the cycles to continue of all harms... If we could get right back to the start and change the way that the legislation is, we'd be all right. But law and policies are designed a certain way and it's designed that way on purpose." (Participant 4, Clinician, Kaupapa Māori Service).

Alongside policy changes, participants suggested addressing social and cultural norms, explaining that one of the factors contributing to life course and intergenerational gambling harms was the normalised nature of gambling activities in communities.

Kaupapa Māori approach to life course and intergenerational harm

Participants from kaupapa Māori services explained that by the time most of their whaiora [clients] sought help, they had experienced life course and intergenerational harms. Similar clinical interventions for addressing gambling behaviours and harms were used with Māori

clients as with other clients; however, the kaupapa Māori approach focused on strengthening connections to culture, reclaiming identity, and reconnecting with Papatūānuku [Earth Mother].

“Because we’re a kaupapa Māori organisation, it’s strengthening the culture, whether you’re Māori, Pacific, Asian, it’s identifying the cultural link and then enhancing that no matter what culture you come from.” (Participant 19, Clinician, Kaupapa Māori Service).

Participants also discussed topics they covered, including addressing whakamā, noa [diminished tapu] and tapu [dignity and sacredness], and kaitiakitanga [guardianship]. Additionally, the importance of ngā takepu principles were highlighted; these included āhurutanga [safe space], te whakakoharangatiratanga [respectful relationship], kaitiakitanga, tino rangatiratanga [integrity, authority], tau kumekume [positive and negative tensions], and mauri ora [wellbeing, breath of life]. For example, āhurutanga meant ensuring the service space was safe, respectful and acknowledging of whaiora.

“That’s what I like when frameworks are, even using those ngā takepu principles in Māori, you know when you’re talking to people they use a term like āhurutanga, you’ve got to be aware of the space you are in when you’re talking to people. Can’t just walk through the door and knock and expect, you have to keep a safe distance between the whānau and yourself, unless you have that close connection you are able to.” (Participant 16, Clinician, Kaupapa Māori Service).

Kaupapa Māori approaches were holistic and whānau orientated. The most well-known Māori approach was Te Whare Tapa Whā, a holistic model that clients easily related with. Te Whare Tapa Whā model covered all harms as it addressed taha wairua [spiritual health], taha tinana [physical health], taha whānau [family health], and taha hinengaro [mental health]. Another tikanga Māori approach included Te Toi o Matariki, a holistic approach that uses a seed and tree metaphor to illustrate where gambling started, how it grew, and where the person can go from there. Participants also described the importance of reconnecting with nature as part of their tikanga Māori intervention, particularly the connection to water.

“As an organisation we will take whānau down to the water and when the tide’s going out we’re going to have a karakia for you and the tides are going to take your mameae with them and support them to let that go. Those sorts of things that may not sit well with the mainstream [services] but are what works for our whānau with their connection... It makes such a big difference for them.” (Participant 17, Clinician, Kaupapa Māori Service).

Pacific approach to life course and intergenerational harm

Participants from a Pacific gambling treatment service explained that the Pacific way was holistic and, if possible, with the whole family. They explained that clients and families were often hesitant to disclose when they experienced harms, thus, their community health promotion work was important. To develop relationships with communities and raise awareness of treatment services, participants went to community events such as markets or church events.

“We have conversations. The way that we do things in our communities, is we invite families in, and talk and give the opportunity for the young ones, the youth, to have

their say... We found that a very effective way to reach out to our community.” (Participant 15, Clinician, Pacific Service).

Asian approach to life course and intergenerational harm

The Asian way of working with clients was also holistic, since the sense of shame surrounding a gambling problem could be felt profoundly by an individual and their family.

“Your behaviour is reflected in the eyes of others, that’s why they choose to hide, first the instinct, the spontaneous response is they want to hide the truth. They don’t want to tell the family. They generate some sense of shame inside themselves that’s linked to their emotional issues too. That’s a cultural thing... sometimes if this has been revealed it’s become another harm to the gambler and the gambler’s family... It’s a stigma not only to the self but also to the family.” (Participant 10, Public Health Promoter, Asian Service)

An example of yin and yang was provided to illustrate the holistic nature of working therapeutically with clients. Yin and yang are two fishes intertwined with a part of each fish in the other, thus indicating that one cannot be treated without the other. The holistic approach included working with an individual’s mental and physical wellbeing as well as with their family, community, and environment. The holistic way of working was a long-term approach that was suited for life course and intergenerational harms.

“Normally we treat the Asian problem in a more holistic way. Your own problem is not only your problem, it’s the problem of the family, the affected others... the intergeneration issue, and also maybe a community issue.” (Participant 10, Public Health Promoter, Asian Service).

Discussion

New Zealand gambling treatment service staff identified two additional long-term and legacy harm domains that were not well captured by Langham’s (2015) taxonomy; harm to the environment and harm to communities. Legacy gambling harms were described as inequitably concentrated in Māori, Pacific and Asian communities and as culturally situated; the nature and consequences of harms could be intertwined with cultural and community beliefs, practices and values.

Treatment service practices for addressing legacy harms affecting individuals and families were generally not differentiated from strategies to address crisis level harms, and general community education and awareness raising activities. Practice was seen to be limited by low service engagement beyond ‘individuals experiencing problem gambling.’ Nonetheless, life course and legacy harm were considered to be a ‘wicked problem’ requiring a multi-level and multi theoretical approach. In the academic literature, wicked problems have been characterised as “ill-structured issues that have human relationships and interactions at their centre” (McGregor, 2012, p. 65) and involve complex social and political factors. Culturally based approaches were thought to be well-placed to inform a holistic approach to breaking complex cycles (e.g., of poverty, low community cohesion and constraints on recovery capital). These cycles were described as both facilitated and exacerbated by gambling harm. We discuss opportunities for enhancing harm reduction practice suggested by the current research.

Life course and legacy environmental and community harms

In addition to the domains of harm identified by Langham and colleagues (2015), gambling was directly and indirectly implicated in multiple processes of environmental and community degradation. Harm to the environment was identified as a life course and intergenerational harm as it could set the standard for a way of living for individuals, families and whole communities. Living environments were reported to degrade over time as gambling opportunities and associated harms increased (e.g., growing inability to afford adequate nutrition, pay bills, maintain homes). Time, money and energy could be diverted away from a range of competing local businesses and community development activities (including voluntary efforts to beautify public spaces, re-greening and environmental preservation). Additionally, gambling plays a role in the normalisation of poverty and deprivation, contributing to an environmental decline that can shape communities and continue through generations.

The social, economic and environmental impacts of (predominantly casino) gambling have been an area of investigation since the mid-2000s, with environmental impacts mainly conceptualised in terms of energy resource depletion, carbon dioxide emissions, recycling and transport. These are usually considered in relation to multiple economic benefits brought by gambling and gambling expansion (Wu & Chen, 2015). Participants in our study took a more expansive and ecological definition of 'environment' to encompass the multiple living spaces inhabited by people, plants and animals. Their views were largely contrary to the notion that the gambling industry (particularly community-based EGM venues) contributes positively to community development, for example, through providing employment opportunities and funding community activities. Internationally, gambling corporate social responsibility tends to be limited to encouraging and supporting individuals to 'gamble responsibly', often neglecting broader environmental issues and impacts (Jones, Hillier, & Comfort, 2009; Leung & Snell, 2019). In New Zealand, non-casino community based (EGM) gambling is managed by trusts, which must operate to distribute a minimum of 40% of net proceeds to communities in the form of grants. Trusts position themselves as "raising donations funds for New Zealand communities" (Pub Charity, 2021), emphasising their enabling of a diverse range of community activities and organisations nationwide including amateur sport, education, community health, wellbeing and welfare organisations, arts and culture - "Most families within New Zealand have received some benefit, either directly or indirectly, from gaming machine proceeds through our funding" (The Southern Trust, 2021).

Aligned with participants' views, EGMs have also been constituted as a type of 'environmental toxin' from a public health perspective (Borrell, 2008; Borrell & Boulet, 2005). In New Zealand, very high problem gambling prevalence rates in deprived neighbourhoods are seen as a consequence of living with high concentrations of EGMs and socioeconomic deprivation (Abbott et al., 2014). In addition to harm prevention and minimisation, New Zealand gambling public health legislation mandates facilitating community engagement with, and control over, gambling provision, and support for independent research. In comparison to the diverse groups and interests that make up our communities, the gambling industry is well-connected, represented and heard at local and national government levels in New Zealand (as in most Western democracies) (Adams, 2007; Cassidy, 2014; Hancock & Smith, 2017). Adams and Rossen (2012) argue that a disproportionate focus on traditional psychological treatment services and regulation in New Zealand has occurred at the expense of facilitating community

engagement with gambling issues, supporting independent research, and addressing governmental and community reliance on gambling profits.

Several proposals have been made in recent years regarding addressing community reliance on gambling proceeds. These include calls for direct government funding of community (trust) grant recipients in combination with a review of New Zealand's community funding model (PGF Group, Hapai Te Hauora, & The Salvation Army Oasis, 2020). A new initiative called CommUnity may connect shoppers, local businesses and community groups in a way that will reduce the need for (EGM) trust grants and place more funding control and direction with local communities (PGF Group, 2021). At a minimum the current research supports the development of more nuanced measures of environmental and community impacts, which could underpin additional harm reduction activities (and evaluation) such as reducing community reliance on gambling proceeds and addressing inequitable distribution of both gambling opportunities and proceeds.

Inequities and the cultural situation of legacy gambling harm

Participants also provided insight into gambling-related cultural harm and consequences of legacy harm on Māori, Pacific and Asian populations. The operation of stigma and forms of 'community justice' (where those transgressing sociocultural boundaries are excluded or sanctioned) in smaller communities could compound and exacerbate the long-term effects of gambling harm. This involved reduced help-seeking behaviours and prolonged psychological and relationship harms. The negative psychological effects of social stigma on people experiencing gambling harms (predominantly problem gamblers) have been well documented (see for example Hing, Holdsworth, Tiyce, & Breen, 2014; Livingstone & Rintoul, 2021). Additional to reduced treatment seeking, social stigma negatively affects individuals' self-concept and ability to relate to others. Little research has addressed how best to reduce gambling stigma (Brown & Russell, 2020), and there has been no focused exploration of the complexities and nuances of reducing gambling stigma in minority and/or culturally distinct populations. Our engagement with gambling treatment professionals in New Zealand supported the tentative conclusions of Browne and colleagues, that effective gambling stigma reduction could involve a combination of public education and advocacy (Browne & Russell, 2020). However, in light of the current findings, such activities must be supported by appropriate exploration of the meaning and role of gambling stigma in particular cultural settings (including intersections with notions of 'community justice').

Gambling behaviours and gambling exposure/availability were also identified as contextual factors operating to extend and maintain long-term health and wellbeing inequities linked to poverty, colonisation, and criminalisation in the New Zealand context. These were described as structural issues disproportionately affecting those who have Māori and Pacific heritage. Life-course and legacy gambling harm were also positioned as culturally situated. Gambling was well-placed to link in to (and potentially replace or subvert) key cultural concepts emphasising giving and reciprocity (some Māori and Pacific worldviews) and enhancing family status (some Pacific and Asian worldviews), and fortune and luck (some Pacific and Asian worldviews). These findings are largely consistent with previous sociological research, suggesting that gambling can contribute to the fragmentation and erosion of cultural capital in New Zealand Māori, Pacific and Asian communities (Morrison, 2008; Perese, 2009; Sobrun-Maharaj, Rossen, & Wong, 2012). Cultural capital refers to cultural or subcultural norms,

values, meanings, survival strategies, skills, and definitions that are supportive of social cohesion, action and wellbeing in a community (Steffensmeier & Ulmer, 2006).

The current research suggests that life-course and intergenerational gambling harms facilitate a loss of community control over, and engagement in, defining and creating health promoting environments and systems. Individualised Western health policy, promotion, and treatment systems (including those addressing gambling harm) have created a legacy of barriers and poorer outcomes for Māori and other minority communities (Graham & Masters-Awatere, 2020; Robertson et al., 2005). Inquiry continues to document important links between systems that enhance vital cultural concepts such as whānau (family systems) and wairua (spirit), recovery from addictions and wellbeing (see for example Beals et al., 2006; Graham & Masters-Awatere, 2020; Patterson, Durie, Disley, Tiatia-Seath, & Tualamali'i, 2018; Stone, Whitbeck, Chen, Johnson, & Olson, 2006). Kaupapapa Māori, Pacific and Asian frameworks were recommended for addressing long-term and legacy gambling harm in ways that are holistic and empower communities. Māori are disproportionately harmed by gambling, and have long argued as Te Tiriti o Waitangi (Treaty of Waitangi) partners, for Māori involvement at all levels of decision-making in determining gambling policies, services and revenue direction (Dyall, Hawke, Herd, & Nahi, 2012). The Ministry of Health (2020) identifies four goals, with their basis in Te Tiriti, expressed in terms of mana (lifeforce):

- Mana whakahaere: Effective and appropriate stewardship or kaitiakitanga over the health and disability system. This goes beyond the management of assets or resources.
- Mana motuhake: Enabling the right for Māori to be Māori (Māori self-determination); to exercise their authority over their lives, and to live on Māori terms and according to Māori philosophies, values and practices including tikanga Māori.
- Mana tangata: Achieving equity in health and disability outcomes for Māori across the life course and contributing to Māori wellness.
- Mana Māori: Enabling Ritenga Māori (Māori customary rituals) which are framed by te ao Māori (the Māori world), enacted through tikanga Māori (Māori philosophy & customary practices) and encapsulated within mātauranga Māori (Māori knowledge).

The recent New Zealand government commissioned Health and Disability Systems Review (2020) supports the creation of equity partnerships that move beyond 'consultation' to achieving financial and decision-making empowerment in shaping health systems and addressing issues affecting particular communities.

Addressing legacy gambling harms in New Zealand

Participants acknowledged that addressing legacy gambling harm was limited by low service engagement with individuals, families and communities beyond the presentation of crisis level harms. Quality care was described as long term, holistic and family focused, while engaging appropriate cultural concepts, protocols and knowledge systems. Previous evaluation and exploratory work in New Zealand suggested that about two-thirds of people who have experienced harm in relation to their own gambling, and most family and affected others, engage with services for a maximum of one or two sessions. Most of these clients are in active

crisis (i.e., the gambling associated with the harm is acute and ongoing) (Kolandai-Matchett et al., 2015). Addressing life-course and legacy harm in clients and families who engage in long term or follow-up therapies should involve client-centred and trauma informed care. Participants advocated for expanding family focused approaches, in alignment with ongoing calls for support to be reoriented beyond the 'person with the gambling problem' to respond to the full range of gambling harms (including legacy harms) as they manifest in families (Copello, Templeton, Orford, & Velleman, 2010). Relational approaches to gambling harm are designed to "address the complex interpersonal dynamics and intense emotional experiences that often characterise couples and families whose lives have been impacted by problem gambling" (McComb, Lee, & Sprenkle, 2009). Research detailing the links between gambling and violence against affected others (Dowling et al., 2018; Palmer du Preez et al., 2018), and the relationships between lifetime trauma and addiction (Petry & Steinberg, 2005), reinforces trauma-informed family engagement as an important way forward for addressing life-course and legacy gambling harm.

The notion of enhancing recovery capital (RC) appears particularly promising in relation to participants' comments on enhancing practice addressing life-course and legacy harm. While only just emerging in gambling studies (see Gavriel-Fried & Lev-El, 2020), RC has been documented and explored in individuals who have recovered from substance addictions, reflecting a paradigm shift from an illness/crisis model to a model of recovery promotion and management (Cloud & Granfield, 2008). Aligned with a public health perspective, RC is conceptually linked to natural recovery, recovery management, resilience and protective factors, and broader understandings of wellness, global health and wellbeing (Tew, 2013). Linking both internal and external resources that individuals can draw upon to initiate and sustain processes of addiction recovery, RC can comprise physical capital (e.g., income, savings, investments and property), cultural capital (e.g., alignment with values, beliefs, and attitudes that promote social norms), human capital (e.g., education, knowledge, skills, hope, health and heredity), and social capital (e.g., relationships, including family, friends, and broader social networks). More recently, a systematic literature review identified eight domains of RC: physical, human, personal recovery, growth, health, social/family, cultural, and community recovery (Hennessy, 2017). Based on in-depth interviews with 91 individuals who had experienced gambling recovery, conceptualisation of RC and gambling harm has so far involved four important domains: human capital (i.e., subjective wellbeing, self-efficacy, self-control skills, proactive coping skills, socioemotional skills, reconstruction skills), community capital (i.e., pro-recovery environment, professional therapeutic milieu), social capital (i.e., recovering gamblers' peer support, friends without gambling, family), and financial capital (i.e., pro-recovery financial state) (Gavriel-Fried & Lev-El, 2020). Formulating a comprehensive conceptual model of RC applicable to life-course and legacy gambling harms could support practice by promoting a holistic view of recovery which underscores the importance of enhancing social, environmental and community resources in addressing harms.

Limitations

This qualitative exploration of life-course and legacy gambling harms in New Zealand is necessarily partial, reflecting the views and experiences of a small group of gambling treatment service professionals in New Zealand. Our sample included a range of clinician/practitioners, team leaders, public health promoters and case workers with experience among general, Māori and Pacific service populations. Only one professional had

experience and expertise working with people and families who have Asian heritage in New Zealand. Our ability to report on life-course and legacy harm issues and responses in Asian communities was particularly limited. Professionals reported that they most often engage with people who are in the acute (active) phases of gambling and associated harms. Future studies should involve in-depth engagement with people who have experienced life-course gambling harm, and/or recovered from active gambling problems related to their own gambling and/or the gambling of others.

Conclusion

Life-course and legacy harms are present in New Zealand across all seven harm domains identified in the taxonomy described by Langham et al. (2015); harm to work and study, financial harm, relationship harm, crime and legal harm, emotional and psychological harm, harm to physical and mental health, and cultural harm. This study also identified that gambling could also be directly and indirectly implicated in multiple processes of environmental and community degradation. Treatment professionals view life-course and legacy gambling harms as inequitably concentrated in Māori, Pacific and Asian communities, and as culturally situated. The nature and consequences of harms could be intertwined with cultural and community beliefs, practices and values. More than an issue for individuals and their families, life-course and intergenerational gambling harms could facilitate a loss of community control over and engagement in defining and creating health promoting environments and systems. Professionals advocated for a greater focus on structural/policy changes and more work aligned with a community development model to address life-course and legacy harm, such as removing EGMs from vulnerable communities, building recovery capital and strengthening cultural connections. Formulating a comprehensive conceptual model of 'recovery capital' applicable to life-course and legacy gambling harms could support harm prevention and reduction practice by promoting a holistic view of recovery, which underscores the importance of enhancing social, environmental and community resources in addressing harms.

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Appendix A: NZ Legacy Gambling Harms Survey

Tues, 31 Mar 2020

INFORMATION SHEET

Life course Gambling

INFORMATION SHEET

Thank you for your interest in this project examining gambling and gambling problems.

We are interested in the experiences of a range of New Zealanders **aged 18+** including people who have some current or past issues with gambling, and people who know someone who has caused them some issues due to their gambling – either now or in the past.

If you are one of the above people, you are invited to 15-minute survey, specifically asking about your:

- Issues with your past or current gambling
- Issues you had due to someone else's past or current gambling
- Questions about your general health and wellbeing

Please be aware that some questions may cause you discomfort in recollecting potentially difficult times with your gambling and ill health.

Results for the study will be available by Sept 2021 at the following website address:

<http://www.cqugamblingstudy.info>

If you have any questions about the study, please contact the project's Chief Investigator Prof Matthew Rockloff at m.rockloff@cqu.edu.au .

If you have any concerns about the conduct of the study, please contact the Human Research Ethics Board at CQUniversity at ethics@cqu.edu.au or phone +61 7 4923 2603.

If this survey prompts questions for you about your gambling, you can get confidential advice here:

<https://www.gamblinghelpline.co.nz/>

Please consult the following link if you need other help with other problems, including addressing concerns about your mental health:

<https://www.health.govt.nz/your-health/services-and-support/health-care-services/mental-health-services/mental-health-services-where-get-help>

<NEXT PAGE FOR CONSENT FORM>

CONSENT FORM

I consent to participation in this research project and agree that:

- I have read and understood the *Information Sheet* that describes this study.
- Any questions I had about the project were answered by either the *Information Sheet* or the researcher.
- I have the right to withdraw from the project at any time prior to submission of the survey without penalty, including withdrawal of my participation and/or data.
- The research findings will be included in the researcher's publication(s) on the project and this may include conference presentations and research articles as well as other media described in the *Information Sheet*.
- To protect my privacy, my identifiable information will *not* be used in publication(s).
- I am aware that the results will be available after the date mentioned in the *Information Sheet*.
- The online panel provider which invited you to the survey will receive a payment for their services of inviting participants to this study.
- I am providing informed consent to participate in this project.
- I am 18+ years old

Q0

1. Yes

2. No

If yes, continue to the online survey

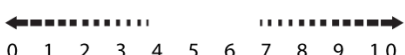
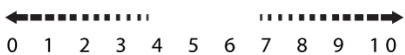
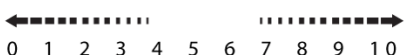
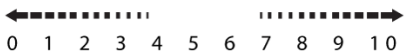
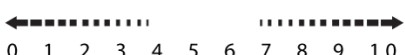
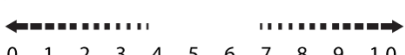
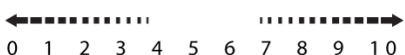
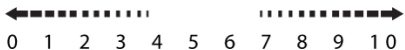
If no, screen-out: Thank you for your time.

<NEXT PAGE FOR SECTION I>

SECTION I, AUSTRALIAN UNITY WELLBEING INDEX

Q 1

How satisfied do you feel, on a scale of zero to 10 where zero means you feel 'not satisfied at all' and 10 means 'completely satisfied' and the middle of the scale is 5.

Statement	not satisfied at all completely satisfied
a Thinking about your own life and personal circumstances, how satisfied are you with your life as a whole?	
"Turning now to various areas of your life. How satisfied are you...?"	
b with your standard of living?	
c with your health?	
d with what you are currently achieving in life?	
e with your personal relationships?	
f with how safe you feel?	
g with feeling part of your community?	
h with your future security?	

SECTION II, TIMING AND SEVERITY OF OWN GAMBLING PROBLEMS

Q 2

Has there been a time when your gambling has caused issues in your life, no matter how minor?

- a) Yes
- b) No

{If answer = b skip to SECTION IV, GROUP B: CSOs}

NODS-Clip for gamblers

Q 3

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 gambling ventures or bets?

Yes, No

Q 4

Have you ever tried to stop, cut down, or control your gambling?

Yes, No

Q 5

Have you ever lied to family members, friends, or others about how much you gamble or how much money you lost on gambling?

Yes, No

.....

Q5a

In total, how many **different times** in your life did your gambling cause issues for you, no matter how minor? **{programmer note: range-check 1-5 times}**

("different times" are periods separated by 12 months or more when gambling caused you little or no issues)

___ (record as **x_times**)

First, we are going to ask you when you experienced your most recent issues.

LOOP 1 to x_times

You said that there were (x_times) times where your gambling caused you issues.

Q 6

For the # Loop most recent time when your gambling caused you issues: In what year did most of these issues start?

Year: (gambling year started #1 - Loop) Month ___ (if known)

{programming note: range check 1930-2020}

Q 7

For the # Loop most recent time when your gambling caused you issues: In what year did most of these issues end?

a) Year: (gambling year ended#1 - Loop) Month (if Known): ___

b) {if Loop =1 add this option} I'm still having most of these issues

{programming note: range check 1930-2020}

END LOOP

{programming note: If people select "I'm still having most of these issues" in the first loop then "gambling year ended" should be programmatically set to 2020 AND participants should be able to advance without typing in the year}

SECTION III, GROUP A: GAMBLERS W/ PAST PROBLEMS

SUBSECTION 1: SETUP

Next, we are going to ask you again about the MOST RECENT time that gambling caused you some issues.

As a reminder, you said that this most recent time ended in {gambling year ended#1}

{OR}

As a reminder, you said your most recent issues are ongoing.

SUBSECTION 2: FINANCIAL IMPACT

Consider the 12-month period immediately before when most or all your gambling issues ended {or the last 12 months, if most of these issues are ongoing}.

You said that this 12-month period ended in the year \${e://Field/End_Date}

*We would like you to think about how your gambling may have impacted upon your **finances** during this time.*

Q 8

Which of these issues from your past gambling that affected you during this time? That is, the 12 month period ending in the year \${e://Field/End_Date}

1. Reduction of my savings
2. Reduction of my available spending money
3. Increased credit card debt
4. Sold personal items
5. Took on additional employment
6. Late payments on bills (e.g. utilities, rates)
7. Less spending on **recreational** expenses such as eating out, going to movies or other entertainment.
8. Less spending on **beneficial** expenses such as insurances, education, car and home maintenance
9. Less spending on **essential** expenses such as medications, healthcare and food

10. None of these issues {exclusive}

Q 9

Which of these issues from your past gambling affected you during this time?

1. Needed assistance from welfare organisations (foodbanks or emergency bill payments)
2. Required assistance from whānau or family
3. Required assistance from your community
4. Loss of supply of utilities (electricity, gas, etc.)
5. Loss of significant assets (e.g. car, home, business, superannuation)
6. Bankruptcy
7. Needed emergency or temporary accommodation
8. None of these issues {exclusive}

Q 10

Overall, what level of impact did your past gambling have upon your finances during that time?

1. No impact
2. Minor impact
3. Moderate impact
4. Major impact

SUBSECTION 3: IMPACT TO RELATIONSHIPS

Consider the 12-month period immediately before when most or all your gambling issues ended {or the last 12 months, if most of these issues are ongoing}.

*Think about how your gambling may have impacted upon your **relationships**.*

Which of the following relationship issues affected you?

Q 11

Which of these issues from your past gambling that affected you during this time?

1. Spent less time with people I care about
2. Got less enjoyment from time spent with people I care about
3. Neglected my relationship responsibilities
4. Neglected my whānau or family responsibilities
5. Spent less time attending social events (non-gambling related)
6. Experienced greater tension in my relationships (suspicion, lying, resentment, etc)
7. Experienced greater conflict in my relationships (arguing, fighting, ultimatums)
8. None of these issues {exclusive}

Q 12**Which of these issues from your past gambling affected you during this time?**

1. Experienced physical or emotional violence in my relationships
2. Felt belittled in my relationships
3. Neglected my cultural obligations
4. Threat of separation or ending a relationship/s
5. Actual separation or ending a relationship/s
6. Social isolation (felt excluded or shut-off from others)
7. None of these issues {exclusive}

Q 13**Overall, what level of impact did your past gambling have upon your personal relationships during that time (family, friends, spouse, partner, etc)?**

1. No impact
2. Minor impact

3. Moderate impact
4. Major impact

SUBSECTION 4: EMOTIONAL OR PSYCHOLOGICAL IMPACT

Consider the 12-month period immediately before when most or all your gambling issues ended {or the last 12 months, if most of these issues are ongoing}.

*Think about how your gambling may have impacted upon your **emotional or psychological wellbeing**.*

Which of the following wellbeing issues affected you?

Q 14

Which of these issues from your past gambling that affected you during this time?

1. Felt distressed about my gambling
2. Felt ashamed of my gambling
3. Felt like a failure
4. Felt insecure or vulnerable
5. Felt like I had a mental illness
6. Felt angry about not controlling my gambling
7. None of these issues {exclusive}

Q 15

Which of these issues from your past gambling affected you during this time?

1. Felt worthless
2. Had regrets that made me feel sorry about my gambling
3. Feelings of hopelessness about gambling
4. Feelings of extreme distress
5. Thoughts of running away or escape
6. None of these issues {exclusive}

Q 16

Overall, what level of impact did your past gambling have upon your emotional or psychological wellbeing at this time?

1. No impact
2. Minor impact
3. Moderate impact
4. Major impact

SUBSECTION 5: HEALTH IMPACTS

Consider the 12-month period immediately before when most or all your gambling issues ended {or the last 12 months, if most of these issues are ongoing}.

*Think about how your gambling may have impacted upon your **physical and mental health**.*

Which of the following physical or mental health issues affected you?

Q 17

Which of these issues from your past gambling that still affected you during that time?

1. Reduced physical activity due to my gambling
2. Stress related health problems (e.g. high blood pressure, headaches)
3. Loss of sleep due to spending time gambling
4. Loss of sleep due to stress or worry about gambling or gambling-related problems
5. Neglected my hygiene and self-care
6. Neglected my medical needs (including taking prescribed medications)
7. Didn't eat as much or often as I should
8. Ate too much
9. None of these issues {exclusive}

Q 18

Which of these issues from your past gambling affected you during that time?

1. Increased my use of tobacco
2. Increased my consumption of alcohol
3. Increased experience of depression
4. Increased use of health services due to health issues caused or exacerbated by my gambling
5. Committed acts of self-harm
6. Unhygienic living conditions (living rough, neglected or unclean housing, etc)
7. Required emergency medical treatment for health issues caused or exacerbated by gambling
8. Attempted suicide
9. None of these issues {exclusive}

Q 19

Overall, what level of impact did your past gambling have upon your physical or mental health at this time?

1. No impact
2. Minor impact
3. Moderate impact
4. Major impact

SUBSECTION 6: WORK OR STUDY IMPACTS

Consider the 12-month period immediately before when most or all your gambling issues ended {or the last 12 months, if most of these issues are ongoing}.

*Think about how your gambling may have impacted upon your **study or work performance**.*

Which of the following study or work performance issues affected you?

Q 20

Which of these issues from your past gambling that still affected you during this time?

1. Reduced performance at work or study (i.e., due to tiredness or distraction)
2. Was late for work or study
3. Was absent from work or study
4. Hindered my job-seeking efforts
5. Used my work or study time to gamble
6. Used my work or study resources to gamble
7. None of these issues {exclusive}

Q 21

Which of these issues from your past gambling affected you during this time?

1. Lack of progression in my job or study
2. Conflict with my colleagues
3. Conflict with my classmates
4. Lost my job
5. Excluded from study
6. Had to withdraw from my study
7. None of these issues {exclusive}

Q 22

Overall, what level of impact did your past gambling have upon your work or study performance at this time?

1. No impact
2. Minor impact
3. Moderate impact
4. Major impact

SUBSECTION 7: OTHER PROBLEMS

Consider the 12-month period immediately before when most or all your gambling issues ended {for the last 12 months, if most of these issues are ongoing}.

*Think about how your gambling may have impacted upon **other areas of your life**.*

Which of the following issues from other areas of life affected you?

Q 23

Which of these issues from your past gambling that affected you during this time?

1. Left children unsupervised
2. Didn't fully attend to needs of children
3. Took money or items from friends, whānau or family without asking first
4. Promised to pay back money without genuinely intending to do so
5. Arrested for unsafe driving
6. Reduced my contribution to church obligations
7. Reduced my contribution to community obligations
8. Felt less connected to my church
9. Felt less connected to my community
10. None of these issues {exclusive}

Q 24

Which of these issues from your past gambling affected you during this time?

1. Felt that I had shamed my family name within my church
2. Felt that I had shamed my family name within my community
3. Petty theft or dishonesty in respect to government, businesses or other people (not family/whānau/friends)
4. Felt compelled or forced to commit a crime or steal to fund gambling or pay debts
5. Outcast from church due to involvement with gambling

6. Outcast from community due to involvement with gambling
7. Had experiences with violence (include family/domestic violence)
8. None of these issues {exclusive}

Q 25

Overall, what level of “other” impacts did your past gambling have upon you at this time?

1. No impact
2. Minor impact
3. Moderate impact
4. Major impact

Q 26

What other issues, not already mentioned previously, affected you during this time?

___ {fill-in-the-blank} or none

SUBSECTION 8: IMPACT TO OTHERS

*Think about how your gambling may have impacted upon your **other people in your life**.*

Q 27

Considering all the issues raised earlier, how many other people would you estimate were negatively affected by your past gambling?

As a reminder, you said that this most recent time ended in {gambling year ended#1}

or

As a reminder, you said most of these issues are ongoing

<ENTER NUMBER>

{programming note: range check 0-100}

{programming note: If "0" skip Q28 and Q29}

Q 28

And how many of these people were negatively affected by your past gambling AS MUCH as you were or more?

<ENTER NUMBER>

{programming note: no more than Q27}

Q 29

What was your relationship with the person/people affected by your gambling?

{check all that apply}

1. Spouse, de facto or romantic partner (past or present)
2. Child
3. Parent
4. Sibling (brother or sister)
5. Close friend
6. Other whānau or family member
7. Co-worker/colleague
8. Other, please specify

SUBSECTION 9: IMPACTS FROM OTHERS

Q 30

During this time, were you negatively affected by anybody else's gambling?

1. Yes
2. No > if Q7 = "I'm still having most of these problems" skip to SECTION VI, SF12V2 Health Survey, otherwise skip to SECTION V, Current Harms

Q 31

How many other people negatively affected you, due to their gambling, during this time?

<ENTER NUMBER>

Q 32

What was your relationship with the person/people who affected you due to their gambling?

{select all that apply}

1. Spouse, de facto or romantic partner
2. Close friend
3. Parent
4. Sibling (brother or sister)
5. Child
6. whānau or family member
7. Co-worker/colleague
8. Other, please specify

{If Q7 = "I'm still having most of these problems" skip to SECTION VI, SF12V2 Health Survey, otherwise skip to SECTION V, Current Harms}

SECTION IV, GROUP B: CSOs

Q 33

Have you had a close relationship* with a person whose gambling has caused issues in your life, no matter how minor?

****When we talk about a close relationship, we are referring to a personal relationship with someone that you care about and have had regular communication with.***

1. Yes
2. No

{If answer = 2 respondent is not eligible to complete the survey}

Q 34

How would you describe your relationship with this person? If there is more than one person, think about the person whose issues affected you the most.

1. Person is/was my spouse, de facto or romantic partner
2. Person is/was my close friend
3. Person is my parent
4. Person is my sibling (brother or sister)
5. Person is my minor child (age 17 or less)
6. Person is my adult child (age 18+)
7. Person is another close whānau or family member
8. Person is a close co-worker/colleague
9. Other, please specify

Q 35

In total, how many different times in your life did this person's gambling cause you issues, no matter how minor?

("different times" are periods separated by 12 months or more when their gambling caused you little or no issues)

___ (record as x_CSOTimes)

First, we are first going to ask you when you experienced your most recent issues from this person's gambling.

LOOPB 1 to x_CSOTimes

You said that there were (x_CSOTimes) times where this person's gambling issues caused you problems.

Q 36

For the # Loopb most recent time this person's gambling caused issues for you: In what year did most of these issues start for you?

Year: _(gambling year started #1 - Loopb)_ Month (if known) ____

{programming note: range check 1930-2020}

Q 37

For the # Loopb most recent time this person's gambling caused issues for you: In what year did most of these issues end for you?

a) Year: _(gambling year ended#1 - Loopb)_ Month (if known): ____

b) {if Loopb =1 add this option} I'm still having most of these issues

{programming note: range check 1930-2020}

END LOOP

{programming note: If people check “I’m still having most of these issues”, the Year Ending should be automatically set to 2020, AND people should be able to advance without typing in the year.}

Q 38

Are you still in close contact with this person? (yes/no)

IF “no”...

Q 39

In what year did your close contact with this person end?

Year ___ month (if known) ____

{programming note: range check 1930-2020}

SUBSECTION 1 FOR CSOs: NODS-Clip

As best you can, consider how this person should answer the following three questions.

Q 40

Have there ever been periods lasting 2 weeks or longer when this person spent a lot of time thinking about gambling experiences, or planning out future gambling ventures or bets?

Yes, No

Q 41

Did this person ever try to stop, cut down, or control their gambling (regardless of their success)?

Yes, No

Q 42

Did this person ever lie to family members, friends, or others about how much they gambled or how much money they lost on gambling?

Yes, No

.....

SUBSECTION 2 FOR CSOs: FINANCIAL IMPACT

Consider the 12-month period immediately before when most or all your issues from this person's gambling ended {or the last 12 months, if most of these issues are ongoing}.

You said that this 12-month period ended in the year \${e://Field/End_Date}

*We would like you to think about how this person's gambling may have impacted upon your **finances** during this time.*

Q 43

Which of these issues from HIS OR HER past gambling that affected you during this time?

1. Reduction of my savings
2. Reduction of my available spending money
3. Increased credit card debt
4. Sold personal items
5. Took on additional employment
6. Late payments on bills (e.g. utilities, rates)
7. Less spending on **recreational** expenses such as eating out, going to the movies or other entertainment.
8. Less spending on **beneficial** expenses such as insurances, education, car and home maintenance
9. Less spending on **essential** expenses such as medications, healthcare and food

10. None of these issues {exclusive}

Remember, for these questions we want you to think about the impact that the person's gambling had on YOU, and not how it might have impacted them.

Q 44

Which of these issues from HIS OR HER past gambling affected you during this time?

1. Needed assistance from welfare organisations (foodbanks or emergency bill payments)
2. Required assistance from whānau or family
3. Required assistance from your community
4. Loss of supply of utilities (electricity, gas, etc.)
5. Loss of significant assets (e.g. car, home, business, superannuation)
6. Bankruptcy
7. Needed emergency or temporary accommodation
8. None of these issues {exclusive}

Q 45

Overall, what level of impact did the person's past gambling have upon your finances during this time?

1. No impact
2. Minor impact
3. Moderate impact
4. Major impact

SUBSECTION 3 FOR CSOs: IMPACT TO RELATIONSHIPS

Consider the 12-month period immediately before when most or all your issues from this person's gambling ended {or the last 12 months, if most of these issues are ongoing}.

*Think about how this person's gambling may have impacted upon your **relationships**.*

Which of the following relationship issues affected you?

Q 46

Which of these issues from HIS OR HER past gambling that affected you during this time?

1. Spent less time with people I care about
2. Got less enjoyment from time spent with people I care about
3. Neglected my relationship responsibilities
4. Neglected my whānau or family responsibilities
5. Spent less time attending social events (non-gambling related)
6. Experienced greater tension in my relationships (suspicion, lying, resentment, etc)
7. Experienced greater conflict in my relationships (arguing, fighting, ultimatums)
8. None of these issues {exclusive}

Q 47

Which of these issues from HIS OR HER past gambling affected you during this time?

1. Experienced physical or emotional violence in my relationships
2. Felt belittled in my relationships
3. Threat of separation or ending a relationship/s
4. Actual separation or ending a relationship/s
5. Social isolation (felt excluded or shut-off from others)
6. None of these issues {exclusive}

Q 48

Overall, what level of impact did the person's past gambling have upon your own relationships during this time?

1. No impact

2. Minor impact
3. Moderate impact
4. Major impact

SUBSECTION 4 FOR CSOs: EMOTIONAL OR PSYCHOLOGICAL IMPACT

Consider the 12-month period immediately before when most or all your issues from this person's gambling ended {or the last 12 months, if most of these issues are ongoing}.

*Think about how this person's gambling may have impacted upon your **emotional or psychological wellbeing**.*

Which of the following wellbeing issues affected you?

Q 49

Which of these issues from HIS OR HER past gambling that affected you during this time?

1. Felt distressed about their gambling
2. Felt ashamed of their gambling
3. Felt like a failure
4. Felt insecure or vulnerable
5. Felt like I had a mental illness
6. None of these issues {exclusive}

Q 50

Which of these issues from HIS OR HER past gambling affected you during this time?

1. Felt angry about not controlling their gambling
2. Felt worthless
3. Feelings of hopelessness about their gambling
4. Feelings of extreme distress
5. Thoughts of running away or escape
6. None of these issues {exclusive}

Q 51

Overall, what level of impact did the person's past gambling have upon your wellbeing?

1. No impact
2. Minor impact
3. Moderate impact
4. Major impact

SUBSECTION 5 FOR CSOs: HEALTH IMPACTS

Consider the 12-month period immediately before when most or all your issues from this person's gambling ended {or the last 12 months, if most of these issues are ongoing}.

*Think about how your gambling may have impacted upon your **physical and mental health**.*

Which of the following physical or mental health issues affected you?

Q 52

Which of these issues from HIS OR HER past gambling that affected you during this time?

1. Reduced physical activity due to their gambling
2. Stress related health problems (e.g. high blood pressure, headaches)
3. Loss of sleep due to spending time with the person gambling
4. Loss of sleep due to stress or worry about their gambling or gambling-related problems
5. Neglected my hygiene and self-care
6. Neglected my medical needs (including taking prescribed medications)
7. Didn't eat as much or often as I should
8. Ate too much
9. None of these issues {exclusive}

Q 53

Which of these issues from HIS OR HER past gambling affected you during this time?

1. Increased my use of tobacco
2. Increased my consumption of alcohol
3. Increased experience of depression
4. Increased use of health services due to health issues caused or exacerbated by their gambling
5. Committed acts of self-harm
6. Unhygienic living conditions (living rough, neglected or unclean housing, etc)
7. Required emergency medical treatment for health issues caused or exacerbated by their gambling
8. Attempted suicide
9. None of these issues {exclusive}

Q 54

Overall, what level of impact did the person's past gambling have upon your physical or mental health?

1. No impact
2. Minor impact
3. Moderate impact
4. Major impact

SUBSECTION 6 FOR CSOs: WORK OR STUDY IMPACTS

Consider the 12-month period immediately before when most or all your issues from this person's gambling ended {or the last 12 months, if most of these issues are ongoing}.

*Think about how this person's gambling may have impacted upon your **study or work performance**.*

Which of the following study or work performance issues affected you?

Q 55

Which of these issues from HIS OR HER past gambling that affected you during this time?

1. Reduced performance at work or study (i.e., due to tiredness or distraction)
2. Was late for work or study
3. Was absent from work or study
4. Hindered my job-seeking efforts
5. Used my work or study time to attend to issues caused by their gambling
6. Used my work or study resources to assist with matters arising from their gambling
7. None of these issues {exclusive}

Q 56

Which of these issues from HIS OR HER past gambling still affected you during this time?

1. Lack of progression in my job or study
2. Conflict with my colleagues
3. Conflict with my classmates
4. Lost my job
5. Excluded from study
6. Had to withdraw from my study
7. None of these issues {exclusive}

Q 57

Overall, what level of impact did the person's past gambling have upon your work or study performance?

1. No impact
2. Minor impact
3. Moderate impact
4. Major impact

SUBSECTION 7 FOR CSOs: OTHER PROBLEMS

Consider the 12-month period immediately before when most or all your issues from this person's gambling ended {or the last 12 months, if most of these issues are ongoing}.

*Think about how this person's gambling may have impacted upon **other areas of your life**.*

Which of the following issues from other areas of life affected you?

Q 58

Which of these issues from HIS OR HER past gambling that affected you during this time?

1. Left children unsupervised
2. Didn't fully attend to the needs of children
3. Took money or items from friends, whānau or family without asking first
4. Promised to pay back money without genuinely intending to do so
5. Arrested for unsafe driving
6. Reduced my contribution to church obligations
7. Reduced my contribution to community obligations
8. Felt less connected to my church
9. Felt less connected to my community
10. None of these issues {exclusive}

Q 59

Which of these issues from HIS OR HER past gambling affected you during this time?

1. Felt that I had shamed my family name within my church
2. Felt that I had shamed my family name within my community
3. Petty theft or dishonesty in respect to government, businesses or other people (not family/whānau/friends)
4. Felt compelled or forced to commit a crime or steal to fund their gambling or pay debts
5. Outcast from church due to involvement with gambling
6. Outcast from community due to involvement with gambling

7. Had experiences with violence (include family/domestic violence)
8. {programming note: if no items are selected, given warning screen to ask if the respondent was correct in selecting "none"}
9. None of these issues {exclusive}

Q 60

Overall, what level of "other" impacts did HIS OR HER past gambling have upon you during this time?

1. No impact
2. Minor impact
3. Moderate impact
4. Major impact

Q 60a

What other issues, not already mentioned previously, affected you during this time?

___ {fill-in-the-blank} or none

SUBSECTION 8 FOR CSOs: IMPACT TO OTHERS

Q 61

Considering all the issues raised earlier, how many other people would you estimate were negatively affected by this person's gambling at this time?

That is, in that 12 month period ending in \${e://Field/End_Date}

<ENTER NUMBER>

{programming note: range check 0-100}

{programming note: if "0" skip Q62 and Q63}

Q 62

And how many of these people would you estimate were negatively affected by this person's gambling AS MUCH OR MORE than you were, during this period of time?

<ENTER NUMBER>

{programming note: no more than Q61}

Q 63

What was the relationship to the gambler of the other person/people affected?

check all that apply

1. Spouse, de facto or romantic partner
2. Close friend
3. Parent
4. Sibling (brother or sister)
5. Child
6. Family member or whānau
7. Co-worker/colleague
8. Other, please specify

Q 64

Still thinking about this period of time, were you negatively affected by anybody else's gambling?

1. Yes

2. No > If Q37b = "I'm still having most of these issues" skip to SECTION VI, SF12V2 HEALTH SURVEY, otherwise skip to SECTION V, CURRENT HARMS.

Q 65

During this period of time, how many other people negatively affected you, due to their gambling?

<ENTER NUMBER>

{programming note: range check 0-100}

Q 66

What was your relationship with the other person/people who affected you during this time?

select all that apply

- a) Spouse, de facto or romantic partner
- b) Close friend
- c) Parent
- d) Sibling (brother or sister)
- e) Child
- f) Family member or whānau
- g) Co-worker/colleague
- h) Other, please specify

{If Q37b = "I'm still having most of these issues" skip to SECTION VI, SF12V2 HEALTH SURVEY, otherwise continue to Current Harms below}

SECTION V, CURRENT HARMS

Some people continue to experience some issues from gambling, even after most of the gambling issues have stopped.

Listed below are the issues you have checked-off from the most recent period where you experienced ~~the most~~ gambling issues.

Check off which of these same issues still affected you at SOMETIME WITHIN THE LAST 12 MONTHS due to gambling that has happened in the past.

~~As a reminder, you said that this most recent time ended in {gambling year ended#1 loopa or loopb}~~

~~or~~

~~Most of these issues are ongoing~~

Q 67

{programmer note: create a checklist of harms for Gamblers and CSOs based on only those items checked-off in the above harms-inventories. Respondents should be able to check-again, as appropriate, those harms that they have experienced within the last 12 months}

Q 68

What other issues have you experienced in the last 12 months due to gambling that happened in the past?

{ }

_____ {free text entry}

OR

() None

SECTION VI, SF12V2 HEALTH SURVEY

Q68a. How concerned are you about the COVID19 pandemic?

- 1) Not at all concerned
- 2) Slightly concerned
- 3) Somewhat concerned
- 4) Moderately concerned
- 5) Very concerned
- 6) Extremely concerned

Q68b. In the past 4 weeks, have you had ANY cold or flu-like symptoms (regardless of whether or not you believed it to be a COVID19 infection)?

Please recall that this survey is anonymous. There is no way for the researchers to know your identity.

- 1) Yes
- 2) No

Q 69

a) In general, would you say your health is:

_____ Excellent (1) _____ Very Good (2) _____ Good (3) _____ Fair (4) _____ Poor (5)

The following two questions are about activities you might do during a typical day.

Does YOUR HEALTH NOW LIMIT YOU in these activities? If so, how much?

b) MODERATE ACTIVITIES, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf:

_____ Yes, Limited A Lot (1) _____ Yes, Limited A Little (2) _____ No, Not Limited At All (3)

c) Climbing SEVERAL flights of stairs:

_____ Yes, Limited A Lot (1) _____ Yes, Limited A Little (2) _____ No, Not Limited At All

During the PAST 4 WEEKS have you had any of the following problems with your work or other regular activities AS A RESULT OF YOUR PHYSICAL HEALTH?

d) **ACCOMPLISHED LESS than you would like:** _____ Yes (1) _____ No (2)

e) **Were limited in the KIND of work or other activities:** _____ Yes (1) _____ No (2)

During the PAST 4 WEEKS, were you limited in the kind of work you do or other regular activities AS A RESULT OF ANY EMOTIONAL PROBLEMS (such as feeling depressed or anxious)?

f) **ACCOMPLISHED LESS than you would like:** _____ Yes (1) _____ No (2)

g) **Didn't do work or other activities as CAREFULLY as usual:** _____ Yes (1) _____ No (2)

h) **During the PAST 4 WEEKS, how much did PAIN interfere with your normal work (including both work outside the home and housework)?**

_____ Not At All (1) _____ A Little Bit (2) _____ Moderately (3) _____ Quite A Bit (4) _____ Extremely (5)

The next three questions are about how you feel and how things have been DURING THE PAST 4 WEEKS. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the PAST 4 WEEKS –

i) **Have you felt calm and peaceful?**

_____ All of the Time (1) _____ Most of the Time (2) _____ A Good Bit of the Time (3) _____ Some of the Time (4) _____ A Little of the Time (5) _____ None of the Time (6)

j) **Did you have a lot of energy?**

_____ All of the Time (1) _____ Most of the Time (2) _____ A Good Bit of the Time (3) _____ Some of the Time (4) _____ A Little of the Time (5) _____ None of the Time (6)

k) **Have you felt downhearted and blue?**

_____ All of the Time (1) _____ Most of the Time (2) _____ A Good Bit of the Time (3) _____ Some of the Time (4) _____ A Little of the Time (5) _____ None of the Time (6)

l) **During the PAST 4 WEEKS, how much of the time has your PHYSICAL HEALTH OR EMOTIONAL PROBLEMS interfered with your social activities (like visiting with friends, relatives, etc.)?**

_____ All of the Time (1) _____ Most of the Time (2) _____ A Good Bit of the Time (3) _____ Some of the Time (4) _____ A Little of the Time (5) _____ None

SECTION VII: Problem Gambling Severity Index (PGSI)

Q 70

Thinking about the past 12 months, how often have you bet more than you could really afford to lose?

Never	0
Sometimes	1
Most of the time	2
Almost always	3

Q 71

In the past 12 months, how often have you needed to gamble with larger amounts of money to get the same feeling of excitement?

Never	0
Sometimes	1
Most of the time	2
Almost always	3

Q 72

In the past 12 months, WHEN YOU GAMBLED, how often have you gone back another day to try to win back the money you lost?

Never	0
Sometimes	1
Most of the time	2
Almost always	3

Q 73

In the past 12 months, how often have you borrowed money or sold anything to get money to gamble?

Never	0
Sometimes	1
Most of the time	2
Almost always	3

Q 74

In the past 12 months, how often have you felt that you might have a problem with gambling?

Never	0
Sometimes	1
Most of the time	2
Almost always	3

Q 75

In the past 12 months, how often have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?

Never	0
Sometimes	1
Most of the time	2
Almost always	3

Q 76

In the past 12 months, how often have you felt guilty about the way you gamble, or what happens when you gamble?

Never	0
Sometimes	1
Most of the time	2
Almost always	3

Q 77

In the past 12 months, how often has your gambling caused you any health problems, including stress or anxiety?

Never	0
Sometimes	1
Most of the time	2

Almost always	3
---------------	---

Q 78

In the past 12 months, how often has your gambling caused any financial problems for you or your household?

Never	0
-------	---

Sometimes	1
-----------	---

Most of the time	2
------------------	---

Almost always	3
---------------	---

CHECK

Q 79

Please indicate if you have done any of the following in the last week (tick all that apply to you):

1. Purchased an electrical appliance
2. Watched TV, including streaming services such as Netflix, Amazon Prime, etc
3. Took out a new car insurance policy
4. Slept in your own bed, with or without your partner
5. Gambled with real money (e.g., online gambling, pokie machines, casino, fantasy football etc.)
6. Bought a computer game on a physical compact disc (CD-ROM)

DEMOGRAPHICS

Q 80

What is your gender?

- a) Male

- b) Female
- c) Other

Q 81

What is your age? (18 - 100)

—

Q 82

What is your present marital status?

- a) Single (never married)
- b) Widowed
- c) Divorced/Separated
- d) Married
- e) De facto
- f) Other (please specify)

Q 83

In which country were you born?

- a. New Zealand
- b. Other (please specify)

1. What year did you arrive to live in New Zealand? ____

{programming note: range check 1920-2020}

Q 84

Which ethnic group(s) do you belong to?

- a) NZ European
- b) Māori
- c) Samoan
- d) Cook Island Māori
- e) Tongan
- f) Niuean
- g) Chinese
- h) Indian
- i) Other

1. ____ please specify

Q 85

In the year 2019, what was your approximate personal income level? Not including the income of a spouse, partner or family member (include income from all sources before taxes and any spending).

- 1. Negative/Nil income
- 2. \$1-\$199 weekly (\$1-\$10,399 per year)
- 3. \$200-\$299 weekly (\$10,400-\$15,599 per year)
- 4. \$300-\$399 weekly (\$15,600-\$20,799 per year)
- 5. \$400-\$599 weekly (\$20,800-\$31,199 per year)
- 6. \$600-\$799 weekly (\$31,200-\$41,599 per year)
- 7. \$800-\$999 weekly (\$41,600-\$51,999 per year)
- 8. \$1,000-\$1,249 weekly (\$52,000-\$64,999 per year)
- 9. \$1,250-\$1,499 weekly (\$65,000-\$77,999 per year)
- 10. \$1,500-\$1,999 weekly (\$78,000-\$103,999 per year)

11. \$2,000-\$2,499 weekly (\$104,000-\$129,999 per year)
12. \$2,500-\$2,999 weekly (\$130,000-\$155,999 per year)
13. \$3,000-\$3,499 weekly (\$156,000-\$181,999 per year)
14. \$3,500-\$3,999 weekly (\$182,000-\$207,999 per year)
15. \$4,000-\$4,999 weekly (\$208,000-\$259,999 per year)
16. \$5,000 or more weekly (\$260,000 or more per year)
17. I'm unsure/I'd rather not say

Q 86

In the year 2019, what is the total income level of ALL people living in your household? Including any other household member (include income from all sources before taxes and any spending). Don't include income of others in a group-living situation, however, where living expenses are mostly not shared.

- a) Negative/Nil income
- b) \$1-\$199 weekly (\$1-\$10,399 per year)
- c) \$200-\$299 weekly (\$10,400-\$15,599 per year)
- d) \$300-\$399 weekly (\$15,600-\$20,799 per year)
- e) \$400-\$599 weekly (\$20,800-\$31,199 per year)
- f) \$600-\$799 weekly (\$31,200-\$41,599 per year)
- g) \$800-\$999 weekly (\$41,600-\$51,999 per year)
- h) \$1,000-\$1,249 weekly (\$52,000-\$64,999 per year)
- i) \$1,250-\$1,499 weekly (\$65,000-\$77,999 per year)
- j) \$1,500-\$1,999 weekly (\$78,000-\$103,999 per year)
- k) \$2,000-\$2,499 weekly (\$104,000-\$129,999 per year)
- l) \$2,500-\$2,999 weekly (\$130,000-\$155,999 per year)
- m) \$3,000-\$3,499 weekly (\$156,000-\$181,999 per year)
- n) \$3,500-\$3,999 weekly (\$182,000-\$207,999 per year)
- o) \$4,000-\$4,999 weekly (\$208,000-\$259,999 per year)

- p) \$5,000 or more weekly (\$260,000 or more per year)
- q) I'm unsure/I'd rather not say

Q 87

Do you currently live in an urban area (major city), a regional town/city or a rural area?

1. Urban
2. Regional town or city
3. Rural

Q 88

Please enter the postcode of your current usual place of residence.

—

That brings us to the end of the survey. Thank you for taking the time to participate. If you would like to add any comments, please do so below.

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If you are experiencing discomfort you can contact Gambling Helpline on 0800 654 655 or text 8006. These are a free and confidential telephone service that operates 24 hours a day, 7 days a week.

Please consult the following link if you need other help with other problems, including addressing concerns about your mental health:

<https://www.health.govt.nz/your-health/services-and-support/health-care-services/mental-health-services/mental-health-services-where-get-help>

If you have any concerns about the conduct of the study, please contact the Human Research Ethics Board at CQUniversity at ethics@cqu.edu.au or phone +61 7 4923 2603.

Appendix B: Semi-structured interview protocol

PARTICIPANT INFORMATION SHEET

Life course and Legacy Gambling Harms in New Zealand

Researchers: Dr Maria Bellringer and Dr Giulia Lowe

Research aims and description:

Research has shown that gambling harms have wide-ranging effects, and some harms continue to affect people's lives even after gambling problems have been largely resolved. However, most research has been on immediate or crisis-level harms and there is very little research on harms that may affect people's lives over a much longer time span.

You are invited to participate in a NZ Ministry of Health funded study exploring long-term and intergenerational gambling harms. The aim of the study is to identify and enhance our understanding of what the long-term and intergenerational harms are, and how treatment providers such as yourselves deal with these harms in professional practice. We hope that findings from this study will inform wider treatment and social service communities as well as research, policy and public health approaches to contribute to reducing gambling-related harm in our communities.

How was I identified and why am I being invited to participate in this research?

You have been identified as a clinician or public health promoter working in a gambling treatment service and will have received this invitation to participate via your manager. We wish to draw on your expertise and experience of working with individuals and families who have been affected by gambling-related harms.

What will participation involve?

If you agree to participate, you will be invited to take part in an interview with Giulia Lowe, a researcher with the Gambling and Addictions Research Centre. The interview will include questions about the types of long-term and intergenerational gambling harms that you have come across in your professional life and how you help clients to deal with these sorts of harms.

The interviews will take place by videoconferencing at a time convenient to you. If the Covid-19 situation has been resolved, it may be possible for some interviews to take place face-to-face, if that is your preference. Interviews will last approximately 30-60 minutes. The interview will, with your consent, be audio recorded and transcribed by a professional transcription service.

To arrange an interview, please Email Giulia Lowe (Email: giulia.lowe@aut.ac.nz or call 09 921 9666 x 8164) within the next two weeks.

Anonymity and confidentiality:

Due to the relatively small number of gambling treatment services and counsellors in this country, only limited confidentiality can be offered to you if you choose to participate in this research. The extent of this confidentiality is that: 1) Your decision to participate (or not) in this research and all information collected from you will remain confidential to the researchers, 2) The researchers will not solicit any information of a personal nature about you, other staff members, or clients, 3) Transcriptions of interviews will be stored using a code number and not your name, 4) Your name will only appear on the consent form, which will be stored separately from transcriptions, 5) All information collected during this research will be stored in a locked filing cabinet and in password-protected electronic files for six years following publication of research findings. It will only be accessible to the researchers. After six years, all data will be destroyed (paper records will be shredded and electronic files will be permanently deleted).

Research findings will be produced in a report and may be published in academic journals or presented at national and international conferences. When the study is finished, de-identified and anonymised data (interview transcripts) will be provided to the Ministry of Health (which is funding the research) and may be provided to students in the future for secondary analyses as part of their qualification (e.g. honours dissertation). De-identified and anonymised data may also be provided to certain researchers at Central Queensland University in Australia; these researchers are partners with AUT for this research project. Your identity will never be made public.

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. Once the findings have been produced (approx. date: October 2020), removal of your data will not be possible.

Risks and benefits:

There are no anticipated risks to participating in this research. Findings from this study will have the potential to positively benefit policy and practice. We hope that you find participation in this research encouraging and supportive of the important work that you do.

Costs of participating in this research: An interview is likely to last 30-60 minutes.

Research findings:

Research findings will be available in a one or two page summary and a full report. Please indicate on the consent form if you wish to receive a summary of findings.

The final report will be made available on the Gambling and Addictions Research Centre website (www.aut.ac.nz/garc) and on the Ministry of Health website (www.health.govt.nz).

What do I do if I have concerns about this research?

Any questions or concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Maria Bellringer (maria.bellringer@aut.ac.nz, 09 921 9666 ext. 7232).

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, Dr Carina Meares (ethics@aut.ac.nz , 09 921 9666 ext. 6038).

If you agree to participate, we will ask you to sign a consent form indicating that you have understood the information in this Information Sheet. If you have any questions or would like to take part in an interview, please contact Giulia Lowe by Email at giulia.lowe@aut.ac.nz.

Thank you for taking the time to consider this research.

This research was approved by the Auckland University of Technology Ethics Committee on 27 May 2020, reference number 20/113.

27 May 2020

CONSENT FORM**Life course and Legacy Gambling Harms in New Zealand****Researchers:** Maria Bellringer & Giulia Lowe

I have read the Participant Information Sheet for the above named project. I understood the nature of the research and why I have been selected. I have had the opportunity to ask questions and have them answered to my satisfaction. I have been given sufficient time to consider my participation.

- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- I understand that if I withdraw from the study, I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. Once the findings have been produced (approx. October 2020), removal of my data may not be possible.
- I understand that interviews will be audio recorded and transcribed, and that I can request for recording to be stopped at any time.
- I understand that all personal information collected from me will remain confidential to the researchers and that no identifying information will be published.
- I understand that all data will be securely stored for 6 years following publication of findings, after which they will be destroyed.
- I understand that all non-identifiable data collected in this study may be used in the future by the researchers for secondary analyses and/or students (supervised by the researchers) as a part of the students' research qualification (e.g. honours dissertation).

Check/tick the boxes below if you would like to receive a copy of your transcription and/or a summary of findings:

I would like to receive a copy of the transcription to review and edit.

I would like to receive a summary of findings.

Email: _____

Declaration by participant:

I hereby consent to take part in this research.

Name: _____

Signature: _____ Date: _____

Declaration by member of research team:

I received the consent form prior to the interview. I have given a verbal explanation of the research project to the participant, and have answered the participant's questions about it. I believe the participant understands the study and has given informed consent to participate.

Name: _____

Signature: _____ Date: _____

This research was approved by the Auckland University of Technology Ethics Committee on 27 May 2020, reference number 20/113.

In this interview, I would like you to think about your experience as a gambling counsellor/practitioner working with gamblers as well as people affected by someone else's gambling. I stress that I do not want to know individual names or details but please answer the questions from your broad knowledge of working with people affected by gambling harms. For this research we are particularly interested in understanding the long-term harms from gambling to self and others; this means the harms that persist over time, sometimes years. We are not as interested in immediate or crisis level harms as quite a lot is already known about those. We are also interested in harms that can be passed on to other generations, so where one person's gambling may have negative consequences for their child or grandchild.

If an example is requested: As an example if a person gambles all their money and loses their home, their family may become homeless, so the children will be negatively affected by that. Or adult children may have to go out to work to support their parent rather than going to university and getting a tertiary education that could potentially lead to a better paid job. The harms are loss of potential education and employment and, possibly, quality of life.

Topic areas:

General questions:

What can you tell me about long-term harms caused by gambling?

How would you define long-term harms caused by gambling?

What can you tell me about intergenerational harms caused by gambling? These are harms caused to children or grandchildren from parental/grandparental gambling.

And, in your experience, how do these harms specifically affect individuals or communities of different ethnicities?

Now I'm going to ask questions about some specific harms from gambling. The harms I'll cover are financial, relationship, emotional or psychological harm, harm to physical health, work/study harms, harms to or from others, and legal harms – are there any categories of harms that I have missed?

In your experience, is it difficult to separate these harms? (Are they interrelated?)

· **Financial harm:**

- What financial consequences you have heard about in your professional experience?

§ (e.g. reduction in savings or available spending money, credit card debt, selling possessions/repossession of items etc)

- And what long-term implications of these financial impacts have you heard of?
- Do financial impacts affect generations (i.e., parental gambling affecting that of their children or grandchildren)? How so?

§ Why? What evidence of this have you seen? How does gambling contribute to the long-term or intergenerational financial harms that you mentioned?

- Are there any long-term or intergenerational financial harms from gambling that you think are specific to, or particularly affect individuals or communities of different ethnicities?

· ***Relationship harm***

- How has gambling affected relationships among your service user/whaiora and whānau-affected base?

§ (e.g. immediate/family relationships, work relationships etc)

- And what long-term implications of the relationship harms have you heard of?
- Do relationship harms affect generations? How so?

§ Why? What evidence of this have you seen? How does gambling contribute to the long-term or intergenerational relationship impacts that you mentioned?

- Are there any long-term or intergenerational relationship harms from gambling that you think are specific to, or particularly affect individuals or communities of different ethnicities?

· ***Emotional or psychological harm***

- How does gambling affected an individual's emotional or psychological wellbeing?
- And what long-term implications of the emotional/psychological harms have you heard of?
- Do emotional/psychological harms affect generations? How so?

§ Why? What evidence of this have you seen? How does gambling contribute to the long-term or intergenerational emotional/psychological impacts?

- Are there any long-term or intergenerational emotional or psychological harms from gambling that you think are specific to, or particularly affect individuals or communities of different ethnicities?

· **Harm to physical health**

- How does gambling affect physical health?
- And what long-term implications of harm to physical health have you heard of?
- Do harms to physical health affect generations? How so?
 - § Why? What evidence of this have you seen? How does gambling contribute to the long-term or intergenerational health impacts that you mentioned?
- Are there any long-term or intergenerational harms to physical health from gambling that you think are specific to, or particularly affect individuals or communities of different ethnicities?

· **Work or study harms**

- How does gambling affect work or study?
- And what long-term implications of the harms to work or study have you heard of?
- Does work/study harm affect generations? How so?
 - § Why? What evidence of this have you seen? How does gambling contribute to the long-term or intergenerational work/study impacts?
- Are there any long-term or intergenerational work or study harms from gambling that you think are specific to, or particularly affect individuals or communities of different ethnicities?

· **Harms to or from others**

- How does someone's gambling harm those close to them (e.g. partner, family member, friend, work colleague)?
- And what are the long-term implications of the harms to or from others?
- Does the harm to or from others affect generations? How so?
 - § Why? What evidence of this have you seen? How does gambling contribute to the long-term or intergenerational impacts on others?

- Are there any long-term or intergenerational harms to others from gambling that you think are specific to, or particularly affect individuals or communities of different ethnicities?

- **Legal harms**

- How does someone's gambling harm affect them legally? (e.g. theft)
- And what are the long-term implications of the legal harms?
- Does the legal harm affect generations? How so?

§ Why? What evidence of this have you seen? How does gambling contribute to the long-term or intergenerational impacts from legal harms?

- Are there any long-term or intergenerational legal harms from gambling that you think are specific to, or particularly affect individuals or communities of different ethnicities?

Final questions

- What are your thoughts about addressing long-term and intergenerational harms with your service users/whaiora and whānau-affected? Is this something you would routinely focus on with your service users/whaiora and whānau-affected?
- As a counsellor, how do you address long-term and intergenerational harms with your service users/ whaiora and whānau-affected?
 - Are there any specific treatment approaches are effective in dealing with these non-crisis harms?
- And finally, are there any other long-term or intergenerational gambling harms (e.g. specifically related to Māori /Pacific/Asian culture or communities or for individuals or communities of other ethnicities?) that we have missed that you would like to share with us that you might have come across with your service users/whaiora and whānau-affected over the years?

Conclude interview and thank participant for their time.