



**GAMBLING & ADDICTIONS RESEARCH CENTRE**

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CENTRE FOR

**INTERDISCIPLINARY TRAUMA RESEARCH**

AUT UNIVERSITY

# **PROBLEM GAMBLING AND FAMILY VIOLENCE IN HELP-SEEKING POPULATIONS: CO-OCCURRENCE, IMPACT AND COPING**

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## **FINAL REPORT**

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## EXECUTIVE SUMMARY

### *Brief summary of main findings*

Three hundred and seventy (370) gamblers and 84 affected others accessing national problem gambling treatment services took part in a survey on gambling and family/whānau violence and abuse (454 total participants).

Overall, half (50%) of the participants were victims of physical, psychological, emotional, verbal or sexual abuse in the past 12 months, and 44% committed the violence or abuse.

The most common abuse was verbal:

- 37% 'screamed or cursed at' another person and 41% were victims of this
- 34% 'insulted or talked down to' another person and 40% were victims of this.

Physical abuse was less common:

- 7% caused physical harm and 9% were victims of physical harm
- 9% threatened physical harm and 12% were threatened with physical harm
- No participants reported sexually abusing someone but 4% were sexually abused.

More affected others reported committing and being victims of violence and abuse (except for financial abuse) than gamblers:

- 57% of affected others committed violence/abuse compared with 41% of gamblers
- 66% of affected others were victims of violence/abuse compared with 47% of gamblers.

Gamblers were more likely to commit financial abuse; affected others were more likely to be victims.

About three-quarters of the family/whānau violence/abuse was to, or from, a current or ex-partner; the other family members were sons or daughters, and other family/whānau members.

A greater percentage of affected others thought that the violence/abuse was caused by the gambler's gambling, compared with gamblers:

- 46% of affected other victims thought this compared with 21% of gambler victims
- 54% of affected other perpetrators thought this compared with 33% of gambler perpetrators.

Gamblers underestimated the effect of their gambling on family/whānau members. Family/whānau, children and home life were all negatively affected (e.g. financial deprivation, emotional upset, poorer relationship quality). Family/whānau members had various strategies to cope with the other person's gambling.

Major risk factors for gamblers being victims of family/whānau violence/abuse were having children living at home, and experiencing some of the greatest negative impacts from problem gambling.

The major risk factor for gamblers committing family/whānau violence/abuse was having family/whānau members with a mental health issue.

This report details a project conducted to investigate co-existing problem gambling and family/whānau violence<sup>1</sup>. The research was mainly quantitative, with data gathered via questionnaires; however, some qualitative data were also obtained via open-ended questions in the questionnaires. The study team included two senior researchers with expertise in family/whānau violence as well as researchers experienced in gambling research and biostatisticians. The two family/whānau violence experts were Professor Denise Wilson (Ngāti Tahinga (Tainui)) and Professor Jane Koziol-McLain, and both were actively involved in all stages of the study.

Participants were a self-selected convenience sample of new clients (or existing clients of not more than three months duration) accessing three national problem gambling treatment services from June 2013 to March 2015. Gamblers and people affected by someone else's gambling (reported hereafter as 'affected others') were invited to participate. Clients who consented to participate were asked screening questions<sup>2</sup> on gambling and family/whānau violence by their counsellor; this was Phase I. Phase I participants were invited to participate in Phase II, which comprised a comprehensive questionnaire interview conducted via telephone by trained research assistants. Overall, 454 participants (370 gamblers, 84 affected others) were recruited into Phase I of which 208 (166 gamblers, 42 affected others) agreed to take part in Phase II.

The aim of Phase I was to:

- Establish the co-occurrence of problem gambling and family/whānau violence in new clients of specific problem gambling help-seeking populations
- Determine the way in which socio-demographic, gambling mode and co-existing conditions vary with problem gambling and family/whānau violence.

The aim of Phase II was to:

- Utilise in-depth measures of co-existing issues to explore associations between problem gambling and family/whānau violence
- Examine family/whānau violence screening in specific clinical problem gambling populations
- Explore the impacts and coping with problem gambling and family violence on whānau/family.

Phase I screening questions included primary mode of problematic gambling, problem gambling severity, presence of family/whānau violence and demographics. The Phase II questionnaire covered gambling behaviour, impacts of gambling, coping behaviours of family/whānau members, co-existing issues, family/whānau violence (both perpetration and victimisation) and intimate partner violence.

In this study, the term 'family/whānau violence' covered not only physical violence and coercive control (most often thought of as violence), but also psychological and emotional abuse (more often thought of as conflict); these were measured using the HITS scale. Sexual and financial abuse questions were also included. Although this is a very broad concept of family/whānau violence, the purpose of this study was to identify the level of these issues in a problem gambling help-seeking population and to increase our knowledge of these issues. For this reason, results have been presented with a focus on differentiating between gamblers and affected others in relation to perpetrating, or being victims of, family/whānau violence. Although an analysis by gender breakdown is more traditional, the sample sizes precluded additional gender-based analyses.

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<sup>1</sup> Family/whānau violence was defined as conduct, whether actual or threatened, by a person towards, or towards the property of, a member of the person's family/whānau that causes that or any other member of the person's family/whānau to fear for, or to be apprehensive about, his or her personal wellbeing or safety; with the focus in this research being on physical, psychological, emotional, sexual and financial abuse (theft or misuse of money or property such as small goods and jewellery).

<sup>2</sup> The screening questionnaire was developed by the researchers and provided to the counsellors. It included the HITS scale for screening for family/whānau violence. Researchers and counsellors discussed the best way of conducting the screening, particularly for participants whose first language was not English.



## Results

### Participants

In Phase I, 82.5% of participants were gamblers and 18.5% were affected others. Females comprised 43% of gamblers and 73% of affected others. About half were of European/Other descent (47% gamblers, 42% affected others), followed by Asian people (25% gamblers, 32% affected others), Māori (18% gamblers, 12% affected others), and Pacific people (10% gamblers, 14% affected others). A majority were aged 25 to 64 years. Almost half (49%) of gambler participants and 73% of affected other participants were living with a partner (either married, civil union or de facto).

In Phase II, 79.8% were gamblers and 20.2% were affected others; the demographic profile was very similar to that of the Phase I participants. Compared to the general problem gambling treatment seeking population, this research proportionally included slightly more gamblers and slightly less affected others. It over-sampled Asian people, and may also have included slightly more females.

### Phase I

#### Gambling

- The main modes of problematic gambling reported by gamblers and affected others<sup>3</sup> were pub electronic gaming machines (EGMs) (37% and 35% respectively), casino table games (23%, 20%), casino EGMs (15%, 8%) and horse or dog race betting (7%, 16%).
- Of gamblers, 75% were problem gamblers, 12% were moderate-risk gamblers, 7% were low-risk gamblers and 6% were non-gamblers or non-problem gamblers. Of affected others, most (68%) were non-gamblers or non-problem gamblers but 16% were problem gamblers, 10% were moderate-risk gamblers and 7% were low-risk gamblers.

#### Family/whānau violence

- Half (50%) of the participants were victims of family/whānau violence in the prior 12 months and 44% were perpetrators of violence.
  - Overall, the most common type of violence was verbal abuse including ‘screamed or cursed at’ (41% victims, 37% perpetrators) and ‘insulted or talked down to’ (40% victims, 34% perpetrators). ‘Threatened with harm’ (12% victims, 9% perpetrators) and physical harm (9% victims, 7% perpetrators) occurred less frequently. Being a victim of sexual abuse was reported by 4%; none reported perpetrating sexual abuse.
  - Higher proportions of affected others reported family/whānau violence than gamblers, both as victims (66% affected other, 47% gambler) and perpetrators (57%, 41%).
  - The majority of violence was to/from a current or ex-partner (75% victims, 78% perpetrators).
- Ethnic differences<sup>4</sup> were noted for family/whānau violence.
  - A higher proportion of Māori (16%) were victims of physical violence than the other ethnicities (6% to 8%).
  - Slightly higher proportions of Māori and Pacific participants (both 10%) were perpetrators of physical violence than Asian or European/Other participants (both 6%).

<sup>3</sup> Affected others reported the main mode of problematic gambling for the problem gambler they knew.

<sup>4</sup> Ethnicity was not statistically significantly associated with family/whānau violence in the multiple logistic regression analyses, controlling for confounding factors. Thus ethnicity itself is not a risk factor; it is the association of ethnicity with other factors that means some populations are at higher risk for family/whānau violence.

- A higher proportion of Māori (8%) were victims of sexual abuse than the other ethnicities (2% to 3%).
- Lower proportions of Asian participants were victims (24%) or perpetrators (19%) of screaming or cursing behaviour than the other ethnicities (46% to 51% victims, 40% to 53% perpetrators). A similar finding was noted for insulting or talking down to someone (victims 29% Asian vs 43% to 50% other ethnicities; perpetrators 18% vs 37% to 49%).
- Overall, higher proportions of affected others were victims of family/whānau violence than gamblers for all ethnicities, apart from for Pacific participants where it was similar.
- Overall, higher proportions of Asian and European/Other affected others appeared to be perpetrators of family/whānau violence than gamblers; the proportions were similar for Māori and Pacific affected others and gamblers.
- Whilst the majority of violence was to/from a current or ex-partner for all ethnicities, for Asian affected other participants the percentage was the highest with 93% and 94% reporting the violence to/from a current or ex-partner, respectively.

## Phase II

### Gambling behaviour, impacts, coping behaviours and co-existing issues

#### *Gambling behaviour*

- The median number of years of problematic gambling behaviour of gamblers was six, with a median of three gambling sessions per week. Median weekly expenditure was \$300 with a median of eight hours gambling per week.
- Just less than half (45%) of gamblers were currently or previously self-excluded from gambling venues. Slightly more than a fifth (22%) were currently receiving or had previously received counselling or medication for gambling, and 14% were currently attending or had previously attended Gamblers Anonymous meetings.
- Generally, the gamblers were gambling to increase positive emotions and to reduce or avoid negative emotions, rather than gambling for social reasons.

#### *Impacts of gambling*

- Gamblers appeared to underestimate the effect of their behaviour on family/whānau members, home life and children living at home.
  - Effects on family/whānau included financial deprivation, relationship/family discord and/or break-up, and health effects.
  - Effects on home life were similar to family/whānau effects and included financial deprivation, impacts on relationship quality, negative emotions for gamblers, and using gambling as an escape mechanism.
  - Effects on children included social deprivation, emotional pain and neglect, physical or physiological neglect, and relationship strain.

#### *Coping behaviours of family/whānau and interpersonal support*

- Family/whānau members engaged in a wide range of coping strategies. The most common strategies included emotional engagement, assertive engagement, supportive engagement, tolerance, and withdrawal behaviour.
- Gamblers and affected others reported similar levels of interpersonal support.

### *Co-existing issues*

- About one-third (32%) of gamblers and one-quarter (24%) of affected others were classified as risky alcohol drinkers.
- The majority of gamblers and affected others either did not use drugs or used drugs without problems (81% and 93% respectively).
- Twice as many gamblers (43%) were daily tobacco smokers compared with affected others (21%). Thirteen percent of gamblers were ex-smokers as were five percent of affected others.
- Gamblers and affected others reported similar levels of general psychological distress with just less than half having a moderate level of distress (49%, 45% respectively), about one-quarter reporting a low level of distress (30%, 26%), and about one-quarter reporting a high level of distress (21%, 29%).
- Generally, gamblers and affected others reported similar levels of anger and hostility, usually below the cut-off for higher levels.
- Generally, gamblers and affected others reported similar levels of emotion regulation (good control).
- Generally, gamblers and affected others reported similar levels of general distress (low levels).

### Family/whānau violence

- Higher proportions of affected others reported family/whānau violence than gamblers, both as victims (83% affected other, 61% gambler) and perpetrators (62%, 52%). There were some discrepancies with the percentages in Phase I, possibly because financial violence was included in Phase II (but not in Phase I) and possibly due to the self-selected reduced sample size in Phase II.
- Excluding financial violence, just less than half of the gamblers were victims or perpetrators of family/whānau violence in the prior 12 months (49% and 43% respectively), compared with two-thirds to three-quarters of affected others (76%, 62%).
  - Overall, the most common type of violence was verbal abuse and was ‘screamed or cursed at’ and ‘insulted or talked down to’. For gambler victims the percentages were 44% and 36% respectively and for gambler perpetrators the percentages were 39% and 32%. Higher proportions of affected others reported these types of verbal abuse (victims 64% and 67% respectively, perpetrators 52% and 48% respectively). ‘Threatened with harm’ (9%/26% victim, 8%/14% perpetration for gamblers/affected others respectively) and actual physical harm (6% victimisation for gamblers and 19% for affected others, and similarly for perpetration) was less reported. Being a victim of sexual abuse was reported by 3% of gamblers and 5% of affected others; 2% of affected others reported perpetrating sexual abuse<sup>5</sup> compared with no gamblers.
- Ethnic differences were noted for family/whānau violence amongst gamblers. Due to very small sample sizes for affected others, it is less easy to draw conclusions about the results.
  - A slightly higher proportion of Māori gamblers (10%) were victims of physical violence than gamblers of the other ethnicities (4% to 6%).
  - Higher proportions of Māori and Pacific gamblers (19% and 15% respectively) were perpetrators of physical violence than Asian (0%) or European/Other (4%) gamblers.
  - A slightly higher proportion of Māori gamblers (7%) were victims of sexual abuse than gamblers in the other ethnicities (2% to 4%).
  - Lower proportions of Asian gamblers were victims or perpetrators of insulting, screaming or cursing behaviour than the other ethnicities.
- Gamblers were more likely to report being perpetrators of financial abuse than affected others; affected others were more likely to report being victims.

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<sup>5</sup> This is in contrast to Phase 1 when no participants reported perpetrating sexual violence.

### *Typical relationship between gambling and violence*

- Higher proportions of affected others (46% of victims, 54% of perpetrators) reported that the *violence was caused by the gambling behaviour* compared with gamblers (21% of victims and 33% of perpetrators).
- Slightly higher proportions of gamblers (11% victims, 5% perpetrators) reported that the *gambling was a result of the violence* compared with affected others (6%, 0%).
- A higher proportion of gambler victims (24%) reported that there was *no relationship between the gambling and violence* compared with 11% of affected others. The proportions were similar between gambler and affected other perpetrators (26%, 23%).
- Similar proportions of gambler victims and affected other victims reported that the *gambling and violence could each occur because of the other* (22% and 29% respectively). However, more gambler perpetrators reported this (27%) than affected other perpetrators (15%).

### *Associations with being victims of violence for gamblers*

- Participants with children younger than 18 years living at home had almost four times higher risk of being victims than participants without children at home.
- Participants experiencing some of the greatest negative impacts from problem gambling had higher risk of being victims (3 times higher for the third quartile) compared with participants experiencing the least negative impacts.

### *Associations with being perpetrators of violence for gamblers*

- Participants who had family/whānau members with a mental health issue in the prior 12 months had three times higher risk of perpetrating violence than participants who did not have family/whānau members with a mental health issue.

### Intimate partner violence


- 52% of gamblers and 74% of affected others reported being victims of violence perpetrated by their current partner. The median length of the victimisation was five years for gamblers and three years for affected others.
- 43% of gamblers and 62% of affected others who were in a current partner relationship reported perpetrating violence against their current partner. The median length of the perpetration was three years for gamblers and 3.5 years for affected others.
- Verbal abuse was the most prevalent form of intimate partner violence.

### *Associations with intimate partner violence*

Small sample sizes precluded definitive identification of major risk factors for being a victim or a perpetrator of intimate partner violence.

## ***Conclusion***

This study has shown that the co-occurrence of problem gambling and family/whānau violence is common in a population seeking help due to their own or someone else's gambling. It has also shown that the short screen used in the study (the HITS scale) is simple and practical to use by people who are not family violence experts. If this simple screening tool were to be used together with existing procedures in a collaborative inter-agency and case management approach in order to identify family violence amongst people who are affected by gambling problems, this could improve the outcomes for those people. However, prior to any screening implementation, appropriate training is required for staff on how to screen for, and to assess risk of, family/whānau violence, as well as to ensure that relevant support mechanisms and safety processes are in place for people who disclose violence and serious risk to themselves or others.



## 1 BACKGROUND

The impetus for this study emerged from a paucity of research establishing and exploring the link between family violence and problem gambling, despite anecdotal reports of high co-occurrence from practitioners across family violence, problem gambling and family/financial counselling services. The possibility of an association between these factors was reinforced by a commonality in the socio-demographic factors found to produce vulnerability to problem gambling and family violence. These factors included a low level of education, receiving government benefits, and consuming alcohol and drugs (Bohn, Tebben, & Campbell, 2004; Fox & Benson, 2006; Lown, Schmidt, & Wiley, 2006; McMillen & Marshall, 2004; Wenzel, Tucker, Elliott, Marshall, & Williamson, 2004). Additionally, the marital status of problem gamblers was more likely to be separated or divorced (McMillen & Marshall, 2004), indicating an obvious breakdown in family relationships of problem gamblers.

Family violence is increasingly becoming recognised as an issue of major social concern. The term ‘family violence’ covers a range of abusive behaviours towards family members and includes intimate partner violence, and violence towards children and other family members. The violence can take the form of physical abuse, sexual abuse, psychological and emotional abuse, verbal abuse, social abuse, financial abuse, and harassment and stalking.


Problematic gambling is also an issue of major social concern. The 2012 National Gambling Study (N=6,251) identified that 2.5% of the total adult population were classified as moderate-risk or problem gamblers and that this prevalence had remained stable since 2006 (Abbott, Bellringer, Garrett & Mundy-McPherson, 2014). One-third of participants in the National Gambling Study reported that they knew at least one person who has or who had a problem with gambling and, of those, 3.7% reported that a primary effect of that person’s gambling was arguments, fights or domestic violence (Abbott et al., 2014).

Anecdotally, particularly from problem gambling treatment providers and other social service providers, there was a strongly endorsed request for research into problem gambling and family violence. Much undocumented practice was occurring to address the issue though it was fragmented and uncoordinated. Thus, this research project was conceived, focusing on physical, psychological, emotional, financial and sexual abuse amongst a population of treatment-seeking gamblers and affected others (people affected by someone else’s gambling). Family violence was broadly conceptualised as actual or threatened conduct by a person towards a family/whānau member that caused that person to fear for or to be apprehensive about, their personal wellbeing or safety. Family/whānau members were defined as people in a close relationship with the problem gambler such as partners, ex-partners, parents, children, siblings, or significant others who are not necessarily part of the physical household but are part of the family/whānau and/or are fulfilling the function of family.

The research design was developed with the assistance of international collaborators led by Professor Alun Jackson of the Problem Gambling Research and Treatment Centre (PGRTC) at the University of Melbourne, Australia. That team was, at that time, conducting similar research in Australia and Hong Kong. However, whilst the primary outcomes of the present research are consistent with the PGRTC project, study hypotheses and analyses differ. Our research aimed to establish the co-occurrence of problem gambling and family violence in problem gambling help-seeking populations and to determine the way in which co-existing conditions such as alcohol and drug misuse/dependence and psychological problems vary with problem gambling and family violence. In this study, family/whānau violence includes not only physical violence and coercive control (most often thought of as violence), but also psychological and emotional abuse (more often thought of as conflict) and financial abuse. Although this is very broad, the purpose of this study was to identify the level of these issues in a problem gambling help-seeking population and to increase our knowledge around these issues. From the limited research data available, it was hypothesised that family violence would co-exist with problem gambling and that there would be other co-existing issues many of which would be significantly associated with

family/whānau violence. A lack of knowledge of these inter-relationships potentially contributes to fragmented and ineffective interventions and service delivery, particularly for whānau/families.

The Ministry of Health funded the Gambling and Addictions Research Centre and the Centre for Interdisciplinary Trauma Research at Auckland University of Technology (AUT) to conduct the project *Problem gambling research: Family violence in help-seeking populations*, the details of which are documented in this report.



## 2 LITERATURE REVIEW

This chapter presents findings from a review of the literature that considered studies exploring the relationship between problem gambling and family violence. It was greatly aided by a recent systematic review of empirical evidence relevant to the relationship between intimate partner violence (IPV) and problem gambling (see Dowling, Suomi et al., 2014). Early evidence for a relationship emerged from studies of the impacts of problem gambling on families. Increasingly, the focus is specifically examining the relationship between family violence and problem gambling. Before reviewing this evidence, a brief discussion of the conceptualisation of family violence, and contextual factors for the co-occurrence of family violence and problem gambling, are presented.

The literature review was conducted through a search of online databases accessible through the Auckland University of Technology library system to locate potentially relevant articles. Additionally, 'grey' material was searched for on websites of gambling-related organisations and government departments. Key sets of search terms included 'violence', 'abuse', 'neglect' and 'trauma', which were combined with 'family', 'domestic', 'intimate partner', 'spouse', 'children', 'relationship' and the subset 'gambling', 'problem gambling' and 'pathological gambling'. Additional reports/papers were also sourced from the reference lists of those articles identified in this way.

### 2.1 Conceptualisation of family violence

One of the definitions of family violence informing this report is broadly guided by the description in Te Rito, New Zealand Family Violence Prevention Strategy (Ministry of Social Development, 2002).

*"Family violence covers a broad range of controlling behaviours, commonly of a physical, sexual and/or psychological nature that typically involve fear, intimidation or emotional deprivation. It occurs within a variety of close interpersonal relationships, such as between partners, parents and children, siblings, and in other relationships where significant others are not part of the physical household but are part of the family and/or are fulfilling the function of family" (Ministry of Social Development, 2002, p8)*

Te Rito also identified common forms of violence in families/whānau including spouse/partner abuse (violence between current or past adult partners), child abuse/neglect (abuse/neglect of children by an adult), elder abuse/neglect (abuse/neglect of older people aged 65 years and older, by a person with whom they have a relationship of trust), parental abuse (violence perpetrated by a child against their parent), and sibling abuse (violence among siblings).

It is recognised that family violence may manifest in a variety of ways and include behaviours whereby a common motivation or need is to control others. Traditional conceptualisations of family violence revolve around the notions of power and control within family relationships (as exemplified in the Power and Control Wheel, Figure A). The Power and Control Wheel was developed in the 1980s by women and children in Duluth, Minnesota, USA (Pence & Paymar, 1993). Family violence workers asked those women and children to describe the most common ways they felt that they were being harmed. The wheel is now used internationally to help people in situations of family violence to understand and talk about what may be happening to them, and to help all people to understand some of the dynamics that can be involved in family violence. There have been modifications of the wheel to include abusive behaviours unique to specific vulnerable populations such as LGBTI<sup>6</sup> and indigenous people.

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<sup>6</sup> Lesbian, gay, bisexual, transgender and intersex.



Power and control are increasingly conceptualised as ‘coercive control’ whereby it is recognised that family violence can be seen to be a cumulative violation of a family member’s personhood. In this view, family violence is held to be a crime against a person’s self-determination (or ability to determine the course of their lives). Family violence is thus seen as a liberty crime rather than one of assault. This requires a focus not just on what perpetrators of family violence do, but also on what victims have been prevented from doing for themselves (e.g. Stark, 2007; 2009). Coercive control also appreciates the harm from a range of behaviours that may or may not include physical and/or sexual abuse.



Figure A. Power and control wheel (reproduced from SHINE, 2005).

Financial abuse (‘economic abuse’ in the wheel) appears particularly relevant to problem gambling situations in that financial difficulties are also part of the definition of problematic gambling and typically have effects that extend beyond the individual. Suissa (2005) draws on anecdotal information about gamblers and evidence from the drug and alcohol field to assert that those addicted to gambling are likely to be frequently abusive towards their partners and families. Suissa (2005, p1) states that such violent behaviour:

*“...may take different shapes, from psychological abuse to physiological [abuse] and economic control... the gambler will have the tendency to maximise control of his or her environment in order to achieve and maintain his or her addiction habits. Psychological control can be manifested by abusive criticism, threats and unreasonably limiting freedom [of] loved ones... Economic control, such as limiting or preventing family members’ access to family funds, can also be a form of abuse that is used to conceal or maintain a family members’ gambling problem.”*

From the foregoing, it is clear that the term ‘family violence’ can cover a range of abusive behaviours towards family members and includes intimate partner violence and violence towards children and other family members. The violence can take the form of physical abuse, sexual abuse, psychological and emotional abuse, social abuse, financial abuse, and harassment and stalking. For the present study, a broader definition of family violence was used to include not only coercive control but elements of conflict such as verbal abuse.

## **2.2 Contextual factors for the co-occurrence of family violence and problem gambling**

### **A public health framing**

Problem gambling and family violence issues share a wider public health framing which identifies them as complex issues, affected by social and economic factors with inequalities in power and resources (e.g. between men and women, between socioeconomic groups) playing a significant role. For example, the World Health Organisation (WHO) uses an “ecological model”, which draws on gender, human rights and criminal justice perspectives to conceptualise IPV and possible solutions (World Health Organisation/London School of Hygiene and Tropical Medicine, 2010). Risk factors are identified at the levels of individuals, relationships, communities and society. At the individual level, biological factors and personal history may increase the likelihood that an individual will become a victim or perpetrator of violence. Relationship factors can increase risk as peers, intimate partners and family members are a person’s closest social circle and can shape their behaviour and range of experiences. The contexts in which social relationships are embedded such as workplaces and neighbourhoods are important because characteristics of these settings (e.g. level and nature of workplace support available for victims of IPV, housing quality and instability) are associated with people becoming victims or perpetrators of intimate partner and sexual violence. The larger, macro-level factors that influence sexual and intimate partner violence at the societal level are gender inequality, religious and cultural belief systems, societal norms and economic or social policies that create or sustain gaps and tensions between groups of people.

A recent multilevel investigation of correlates of partner violence in population-based datasets across 44 countries (including New Zealand) has highlighted the macro-context of violence against women (Heise & Kotsadam, 2015). Heise and Kotsadam (2015) have made a powerful contribution to the literature moving beyond individual-level factors (e.g. age, education, socioeconomic status), showing that gender inequality at the macro-level helps to predict population levels of IPV internationally. Macro-level inequality in that study included women’s status in employment and protection under the law, as well as broader societal norms supportive of male dominance over women, such as the notion that there are elements of modern Western culture (including New Zealand culture) that work to normalise, minimise or excuse violence against women (e.g. Gavey, 2005).

In regard to family violence trends in New Zealand, it is important to note that at present, data sources dedicated to identifying and recording the different forms of family violence and who is involved, do not exist. Although researchers have conducted some population-based, and smaller surveys, providing information on how many people have experienced family violence, there are no official family violence statistics collected on a regular basis. As Gulliver and Fanslow concluded:

*"... although there are some useful administrative data sets in New Zealand, none could currently be considered a reliable source of data for monitoring trends in family violence in the community over time." (Gulliver & Fanslow, 2013, p.78)*

Nonetheless, research has converged to show that Māori are at increased risk for family violence, and to suggest that there may be culturally specific factors that relate to family violence among Pacific and Asian people. Recently released United Nations analysis notes that macro-level factors including the

rights and societal positioning of indigenous groups are likely to be important determinants of IPV (United Nations, 2014).

The WHO conceptual framing of IPV echoes the way that gambling harm is described within a public health framework (e.g. Korn & Shaffer, 1999; Korn & Reynolds, 2009; Abbott, Volberg, Bellringer & Reith, 2004). That framework distinguishes between, and relates to, the agent (availability and exposure to gambling activities), the host (individual attributes and experiences that increase susceptibility and resistance to problem development) and the environment (the wider physical, social and cultural setting within which gambling occurs) (Abbott et al., 2004). It has been suggested that the disproportionate gambling harm experienced by certain groups of people is related to their social-economic and political positioning within society (e.g. deprivation, lack of representation); access to gambling venues; processes of colonisation; cultural beliefs, values, and practices; and migration and acculturation (e.g. see Rintoul, Livingstone, Mellor, & Jolley, 2013; Raylu & Oei, 2004). In New Zealand, gambling harm is particularly notable in relation to Māori, Pacific people and Asian communities (including recent migrant groups such as Chinese and Koreans (Abbott et al., 2014).

### **Problem gambling and family violence for Māori**

Māori have high problem gambling prevalence rates relative to non-Māori (Abbott et al., 2014; Abbott & Volberg, 1991, 1996, 2000; Ministry of Health, 2006, 2009) and other populations studied internationally (Volberg & Abbott, 1997) and, since 1991, Māori (and Pacific) people have continued to be disproportionately affected. Approximately 1 in 16 Māori males and 1 in 15 Māori females have recently been reported to be either problem or moderate-risk gamblers (Abbott, et al., 2014). Associated harms to whānau and wider Māori communities are likely to be amplified to a similar or greater extent, contributing to numerous health and social inequities.

Māori also have higher family violence prevalence, morbidity and mortality rates compared with other ethnicities. Marie, Fergusson and Boden (2008) found that (after controlling for socio-economic status, family functioning factors and individual factors) Māori males and females were at higher risk of both IPV victimisation and perpetration, as well as higher risk of injuries related to IPV than were non-Māori participants. Risk of IPV did not vary with the depth/degree of Māori identification. The New Zealand National Survey of Crime Victims (Morris, Reilly, Berry, & Ransom, 2003), New Zealand Crime and Safety Survey (Ministry of Justice, 2015; Reilly & Mayhew, 2009), a population-based study of violence against women (Fanslow, Robinson, Crengle, & Perese, 2010) and studies involving health clients (Koziol-McLain, Gardiner, Batty, Rameka, Fyfe, & Giddings, 2004) all reported that Māori women are approximately twice as likely to experience intimate partner violence than any other ethnicity.

Māori women and their children feature highly in IPV and child maltreatment statistics of women using Women's Refuges in 2013/14, police involvement, and child abuse and neglect including death (Dannette et al., 2008, Duncanson et al., 2009; New Zealand Family Violence Clearinghouse, 2015). This is similar to the statistics noted for other indigenous and minority groups (Berry et al., 2009, Hukill, 2006, Brownridge, 2008). From 2009 to 2012, Māori children were at 5.5 times higher risk of death from abuse than children of other ethnicities (Family Violence Death Review Committee, 2014). Māori are also more likely to be sole parent families (Cribb, 2009) and to live in neighbourhoods of high deprivation (Ministry of Health, 2010). Koziol-McLain et al.'s (2004) prevalence study of women presenting to New Zealand adult and child emergency departments found that 34% of Māori women screened positively for IPV and 57% for lifetime exposure to IPV, compared to 21% and 44% respectively for non-Māori women. A later prevalence study of women attending a hauora (Māori health provider) found 27% of Māori women screened positively, and 80% had a lifetime exposure to IPV (Koziol-McLain et al., 2007). These studies highlighted that 60% and 96% (respectively) of the Māori women who screened positively for IPV had children living in the same households. In a

Northland clinical trial, 18% of Māori women who had visited an emergency department reported current or past partner abuse at a three-month follow-up assessment, compared to nine percent of non-Māori women (Koziol-McLain et al., 2010). Taking into account short- and long-term negative effects on their tinana (biological) and hinengaro (mental health), as well as wairua (spiritual) and whānau well-being, partner violence is likely to be a key contributor to the general health inequities for Māori women and Māori in general.

An ecological model of family violence builds a multi-level picture of risk factors for family violence and makes Māori family violence visible in a broader societal context such as loss of land and the moves made by whānau away from traditional areas in order to find work, and the pressures of poor and overcrowded housing. It can also be encapsulated in the restructuring of roles within whānau, and support provided by traditional whānau and hapū structures, the impacts of colonisation and policies of assimilation. While the causes of Māori family violence are acknowledged as a complex mix of historical and contemporary factors, the “magnitude and severity” of violence within whānau is of epidemic proportions, and it is argued that the violence has become normalised and tolerated despite being “the language of the powerless” (Kruger et al., 2004, p.9).

Similarly, gambling and problem gambling are discussed in relation to broad impacts of colonisation and the erosion of traditional concepts such as whānau, whanaunagatanga (relationship, kinship, sense of family connection and belonging) and koha (gifts and contributions to others that maintain social relationships and have connotations of reciprocity) (Watene, Thompson, Barnett, Balzer, & Turinui, 2007). It has been suggested that for Māori, gambling has come to represent hope and the possibility of changing financial status as well as a means to escape both boredom and trauma. The accessibility of gambling products in low income communities, where many Māori reside, has been consistently noted (Dyall, 2007; Clarke et al., 2006). Additionally, gambling activities are an accepted form of fund-raising for Māori to meet cultural responsibilities such as marae upkeep and tangihanga (funeral) expenses (Morrison & Wilson, 2015).

### **Problem gambling and family violence for Pacific people**

Although fewer Pacific people take part in gambling activities than the general population, those who gamble are at greater risk of developing problem gambling (Ministry of Health, 2009; 2012) with a greater proportion having a higher gambling expenditure than other population groups; a ‘bimodal’ distribution for gambling (Abbott, 2001; Abbott & Volberg, 2000). Nationally representative prevalence surveys conducted in 1991 and 1999 estimated that Pacific populations were over six times more likely to have problems than European/Pākehā populations (Abbott, 2001; Abbott & Volberg, 2000). These findings have been supported by the recent 2012 National Gambling Study (Abbott et al., 2014).

Other research has indicated that gambling participation is associated with cultural beliefs, practices and obligations amongst Samoan and Tongan communities, such as with fa’alavelave and other ‘gift-giving’ obligations (e.g. Anae et al., 2008; Bellringer, Perese, Abbott, & Williams, 2006; Cowley et al., 2004; Guttenbeil-Po’uhila et al., 2004; Perese & Faleafa, 2000; Tse et al., 2005, 2012). For example, Pacific mothers who followed a gift-giving practice seemed more likely to gamble and spend more money per week on gambling; migrant Pacific mothers were more likely to gamble than those who were New Zealand born (Bellringer et al., 2006).

Lievore and Mayhew (2007), have stated in their review that reports are mixed as to whether Pacific people are, or are not, over-represented as perpetrators and victims of family violence (e.g. Paulin et al., 2005; Paulin & Tanielu, 2005; Mene Solutions et al., 2005). Some data sources show similar levels of family violence among Pacific people to those of New Zealand Europeans, or lower levels than among Māori. For example, the 2001 National Survey of Crime Victims (which included a booster sample of

700 Pacific people) showed lifetime levels of partner violence, irrespective of gender, were the same for Pacific people as for New Zealand Europeans, although refusals to answer the question were marginally higher. In a study of women seeking emergency care at a paediatric or adult emergency care department, 20% of Pacific women screened positively for partner violence in the previous year, which was virtually the same as for the sample as a whole. The lifetime prevalence of almost 32% for Pacific women was lower than the overall rate of 44% (Koziol-McLain et al., 2004). Other sources, though, hint at a different picture. For example, the Pacific Islands Family (PIF) study provided some information on maternal reports of intimate partner violence in a cohort of 1,095 Pacific mothers living in New Zealand (Schluter, Paterson, & Feehan, 2007). IPV prevalence rates were high with physical victimisation rates of 28% and perpetration of 37% (including a high level of overlap). Acknowledging issues in cross-cultural comparison, the authors noted that these rates appeared to be higher than those found in married/cohabitating female samples in the United States of America, particularly in regard to perpetration. In the PIF study, the experience of social inequality and acculturation issues (greater alignment with New Zealand culture or no alignment with either New Zealand or Pacific culture) were associated with IPV indicating that wider contextual factors are involved.

### **Problem gambling and family violence among Asian people**

Asian people are also affected by problematic gambling in New Zealand. East Asian<sup>7</sup> clients made up 5.6% of all presentations to problem gambling services in the 2013/2014 year, almost half of whom were seeking help in relation to a problem with casino table games (Ministry of Health, 2016). Asian gamblers have reported substantially higher gambling losses than other ethnicities (a median of \$4,000 in the four weeks prior to assessment, compared to an overall median of \$1,000); Asian clients represented 11% of clients contributing to these data while accounting for 41% of the reported losses (Ministry of Health, 2008). In the 2012 National Gambling Study, typical monthly expenditure on gambling was slightly higher among Asian participants than European/Other participants (mean \$74 vs. \$66), though Māori and Pacific participants reported higher average monthly expenditure (mean \$116 and \$112 respectively) (Abbott et al., 2014). It is hypothesised that the acculturation process, lack of experience in New Zealand commercial gambling environments, significant spare cash and free time, limited English ability, difficulty gaining employment and disconnection from family, all create a negative cycle whereby stress leads to gambling to try to win money and/or escape pressures (Wong & Tse, 2003).

A recent international review of family violence and problem gambling in both country-of-origin and migrant Asian contexts concluded that it is reasonable to suggest that a link exists between family violence and gambling in certain Asian communities (Keen et al., 2015). Although the research base is very limited, the authors argued that cultural factors affect the normalisation, perpetration and reporting of both gambling behaviour and family violence in Asian communities, highlighting patriarchal family systems, the impact of a collectivist culture on gambling normalisation, and immigration/acculturation stresses as particularly relevant. Two international studies with small sample sizes have shed light on some links between family violence and gambling in migrant Asian communities. Liao (2008) examined the relationship between problem gambling and IPV in a sample of 31 Chinese community members (8 males and 23 females) recruited from three social service agencies in San Francisco, USA. A partner's problem gambling at the ten-point cut off on the South Oaks Gambling Screen (Lesieur & Blume, 1987) was a significant predictor of IPV. Chinese participants whose partners were problem gamblers (SOGS score  $\geq 10$ ) were more than 27 times more likely to experience IPV. Another study involved focus groups with 39 Cambodian women aged 32 to 66 years who were recruited through a refugee women's network in the United States of America (Bhuyan et al., 2005). The research explored how Cambodian immigrant women talk about domestic violence, what contributes to domestic violence, and what coping and response strategies they use. In

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<sup>7</sup> The state sector tends to define an Asian as someone from the Asian continent, excluding Indians and South Asian people.

addition to emotional and physical abuse, women described men's control of their financial resources. They highlighted men's gambling and unfaithfulness as key issues, as well as control and abuse acted out through the mother/daughter-in-law relationship. Broader contributing factors included the disruption of community life through war and migration, isolation from other Cambodians, and community norms that discourage seeking help outside the family.

In relation to significant others of Chinese gamblers, one study has examined how gambling-related family coping responses affected gambling-related family impacts in Hong Kong (Chan, Dowling, Jackson, & Shek, 2016). Among 103 treatment-seeking Chinese family members, psychological distress and health effects were medium-high and lower than those seen in family members of individuals with gambling, alcohol or drug addictions in a previous study (Orford et al, 2005); however, levels of coping across the three styles investigated (engaged coping, tolerant-inactive and withdrawal) were higher. The authors commented that this finding may mean differences in the way Chinese families experience impacts and respond to them, or this result could be an artefact of the clinical sample used and their positive motivation to seek help.

There has been very little research on family violence among ethnic groups other than Māori and Pacific people in New Zealand. A study of domestic violence among Chinese families in Auckland highlighted the difficulty of attempting to establish rates of domestic violence within ethnic minority communities. The study, by Au (1998), was hindered by low response rates and refusals by Chinese community organisations to distribute information about the study. The author acknowledged that heightened sensitivity could be due to the small size of the Chinese community in New Zealand. The few respondents nevertheless confirmed that domestic violence occurred, though cultural norms tended to prevent open discussion of the issue. Another study of family violence in the New Zealand Asian community interviewed migrants from China, South Asia and South East Asia who had used or come into contact with family violence services (50 women, 6 men) as well as specialist Asian family violence practitioners (Tse, 2007). The project was positioned to "explore the contextual issues of social, cultural and economic triggers of family violence in Asian communities" and identified gambling as a key catalyst for violence along with racism, discrimination (especially in employment) and financial hardship.

### **Considerable commonality in the socio-demographic correlates of problem gambling and family violence**

That a relationship between family violence and problem gambling is likely, is reinforced by a considerable commonality in the socio-demographic risk factors for problem gambling and family violence. These factors include a low level of education, receiving government benefits, and consuming alcohol and drugs (Bohn, Tebben, & Campbell, 2004; Fox, & Benson, 2006; Lown, Schmidt, & Wiley, 2006; McMillen & Marshall, 2004; Wenzel, Tucker, Elliott, Marshall, & Williamson, 2004). These risk factors, and the environments that produce them, form an important backdrop when considering both family violence and problem gambling from a public health perspective.

It is particularly clear that any examination of the relationship between problem gambling and family violence remains incomplete without a consideration of substance use and abuse, given the co-existence of substance use and abuse with both problem behaviours (Vander Bilt, & Franklin, 2003). Indeed, Lesieur and Rothschild's study (1989) revealed that "multiple-problem" parents (co-existing alcohol dependence, substance abuse or over-eating behaviour) were more likely to be violent and abusive toward their children than "pure" gambling parents. A recent study revealed that problem gambler female substance abusers displayed higher rates of violent tendencies, but not victimisation, than non-problem gambler female substance abusers (Cunningham-Williams, Abdallah, Callahan, & Cottle, 2007). In a sample of women seeking emergency department care, the relative odds of experiencing partner violence were 10 times that of women with problem gambling partners, six times higher for

women with problem drinking partners, and 50 times higher for women whose partners were both problem drinkers and problem gamblers (Muelleman, DenOtter, Wadman, Tran, & Anderson, 2002). Lavis and colleagues (2015) have explored whether there was any difference in alcohol misuse, between problem gamblers with co-occurring violence or problem gamblers without violence in their lives (and whether there were any gambling behaviours which differentiated gamblers in the two groups). Participants were a non-representative volunteer sample of 81 problem gamblers recruited from a therapy service in South Australia. Results indicated no significant difference in alcohol use or gambling behaviour between the gamblers who had experienced violence and those who had not. However, in addition to the limitations imposed by the non-representative sample, violence perpetration and victimisation seems to have been measured by a single-item encompassing varying types of violence. For example, “Has [a family member] physically hurt you, insulted or talked down to you, threatened you with harm, or screamed and cursed at you?” which could make the violence/no-violence categories less distinct than if the type of violence and how often the violence has occurred were explored.

## **2.3 Problem gambling and family impacts**

International studies highlight the multifaceted and complex nature of the impacts of problem gambling on family life. Within this literature, relationship conflict and family discord is a persistent theme. A recent systematic literature review of 30 empirical studies examining the impacts of problem gambling on families, conducted between 1998 and 2013, identified common effects reported by spouses/partners. These included strain and conflict in the relationship, loss of trust, financial devastation, high levels of distress, anxiety and depression, physical health problems and isolation from friends and family (Kourgiantakis, Saint-Jacques, & Tremblay, 2013). While most research has focused on the spouse/partner of a gambler, some research has documented adverse effects on children such as loss of the gambling parent due to physical and emotional unavailability, estrangement from wider family networks, loss of safety, material and financial deprivation, depressive symptoms and conduct problems (Kourgiantakis, Saint-Jacques, & Tremblay, 2013). Another recent literature review on problem gambling and its impacts on families suggested that the most common problems reported by family members of problem gamblers are the loss of household or personal money; arguments, anger and violence; lies and deception; neglect of family; negatively affected relationships; poor communication; confusion of family roles and responsibilities; and the development of gambling problems or other addictions within the family (Kalischuk, Nowatzki, Cardwell, Klein, Solowoniuk; 2006).

A study by Krishnan and Orford (2002), recognising the paucity of family impact studies in relation to problem gambling, explored the ways in which family members (primarily partners and parents) try to cope with the excessive or uncontrolled gambling of their family member and the types of support on which they rely. Their findings suggested that family members of gamblers used strategies of engagement (e.g. seeking to control the gambler and/or their money) and tolerance (helping the gambler financially, forgiving and forgetting), which have been associated in the drug and alcohol literature (see for example, Wilson, Graham & Tatt, 2016) with ill-health among family members. Withdrawal strategies and limiting engagement with the gambler seemed to be associated with better health outcomes. Coping actions are reported to influence the extent to which family members are negatively affected by stress related to the gambling behaviour. Several studies have supported such a mediating role of coping skills (Hodgins, Shead, & Makarchuk, 2007; Makarchuk, Hodgins, & Peden, 2002; Rychtarik & McGillicuddy, 2006). However, there is little evidence that findings on the coping styles, which are more or less helpful, have been translated into prevention or treatment programmes.

A recent exploration of life history elements among a purposely diverse sample of problem gamblers (recruited via self-help groups, treatment services, gambling venues and general community advertising) showed violence as a chronic lifelong issue for both male and female gamblers (Andronicos et al., 2015). These authors found that violence began earlier in life for women with neglect,

psychological, physical or sexual abuse and was more likely to shift to IPV victimisation later in their lives (between 33% and 58% of the women reported that they had experienced violence at each of the eight age stages examined, compared to between 7% and 42% of men). In contrast, male problem gamblers' experiences of childhood violence/trauma tended to shift towards social and work/professional problems in later life.

As the foregoing suggests, the literature on gambling impacts within families shows significant disruption in relationships. Additionally, it is known that the marital status of problem gamblers is more likely to be separated or divorced (McMillen & Marshall, 2004), indicating an obvious breakdown in family relations of problem gamblers. The literature examining the family impacts of problem gambling often cites abuse and violence as features characteristic of problem gambling families (Kalischuk et al., 2006; Kalischuk, 2010). Despite the increasing awareness and concern relating to the co-existence of problem gambling and family violence, there are few published studies that specifically examine the relationship between them. Suissa (2005), in an earlier exploration of the relationship between gambling and violence, claimed that "When looking at the phenomenon of gambling in relation to violence, individuals who develop an addiction to gambling (problem gamblers) are often physically and mentally abusive toward their spouse and family members". While this comment seems decisive, the evidence cited was largely anecdotal and linked to evidence emerging in the field of drug and alcohol addictions. Empirical evidence is beginning to emerge that associates gambling problems with intimate partner violence (IPV) and family violence more broadly. This evidence is reviewed in the following section.

## **2.4 Empirical evidence for the relationship between problem gambling and family violence**

Emerging international evidence indicates that gambling problems are associated with family violence. Although most of the evidence relates to intimate partner relationships, there is some evidence that perpetration and victimisation extends to other members of the broader family, particularly parents and children. In this section, available evidence of the links between family violence and problem gambling is discussed in relation to IPV, before discussing violence in wider family circles (also called intra-familial violence).

While available research highlights many factors that are associated with, or may affect, the relationship between family violence and problem gambling, there remains little exploration of the nature and trajectories of the relationship itself. For example, does problem gambling lead to family violence via gambling-related stressors and/or is family violence a context from which people try to escape, producing problem gambling? As several authors have commented, it remains possible that problem gambling and family violence are both mediated by one or more common factors, for example, impulsivity, psychopathology, alcohol use problems or substance abuse (Afifi, Cox, Martens, Sareen, & Enns, 2010; Dowling, 2014; Dowling, Jackson et al., 2014; Dowling, Suomi et al., 2014).

### ***Intimate partner violence***

Dowling and colleagues have recently produced the first systematic review of research into the relationship between problem gambling and IPV (Dowling, Suomi et al., 2014). Fourteen studies were identified and meta-analyses conducted to identify the mean prevalence of IPV victimisation and perpetration in problem gambling samples, and problem gambling in IPV victimisation and perpetration samples. Factors that may influence the relationship between problem gambling and family violence (either victimisation or perpetration) were also identified.

From the meta-analyses, it seems that people with gambling problems are more likely than people without gambling problems to be victims and perpetrators of IPV (however, the authors noted that the



relationships are complex, as previously suggested). Over one-third of people with gambling problems reported being the victims (38%) or perpetrators (37%) of physical IPV. The review also indicated that 11% of IPV offenders report gambling problems. In the meta-analyses, several factors were associated with the relationship between gambling and IPV. Less than full employment and anger problems seemed to facilitate a relationship between gambling problems and being a victim of IPV; and younger age, less than full employment, anger problems, impulsivity, and alcohol and drug use seemed to exacerbate the relationship between gambling problems and IPV perpetration. The authors commented that these factors highlighted a cluster of conditions (gambling, violence, alcohol and drug use, and mental health issues) for which it is important that public health and treatment services screen and provide comprehensive treatment.

While the systematic review has suggested that disproportionately high rates of IPV occur in problem gambling samples, it is important to note that some data remain conflicting. Results from the Year 2 data collection wave of the longitudinal New Zealand Pacific Islands Families study, for example, indicated no association between gambling and IPV victimisation in either mothers or fathers. However, significant relationships between problem drinking and IPV victimisation were found (Schluter, Abbott, & Bellringer, 2008). Four years later, data from the Year 6 data collection wave of the Pacific Islands Families study indicated that for the fathers of the cohort, gambling was associated with being perpetrators as well as being victims of verbal aggression, and that being at risk of developing problem gambling or being a problem gambler were also associated with physical violence. Conversely, for the cohort mothers, at risk/problem gambling was associated with lower odds for perpetrating violence (Bellringer, Abbott, Williams, & Gao, 2008).

The review has also underscored the inadequacy of the research that has looked at the issues of family violence and problem gambling together in that, for example, samples were mostly recruited from the United States of America, utilised cross-sectional (snapshot only) design and half failed to employ validated scales to measure problem gambling and IPV. Most studies employed samples of treatment seeking problem gamblers. Whilst the majority of literature addressing the co-occurrence of problem gambling and family violence has been based on such clinical populations, a relationship was confirmed in data collected from one nationally representative sample of adults (USA) from 2001 to 2003 (n=3,334) (Afifi et al., 2010). After controlling for socio-demographic variables and mental disorders, pathological (and in some cases problem) gambling was associated with increased odds of perpetrating dating violence and child abuse. Additionally, experiences of dating violence (before the age of 21 years) and marital violence victimisation increased odds of pathological gambling. While the sizes of some of the co-occurrence categories were small (e.g. two pathological gamblers reporting severe marital violence perpetration), that study also indicated the complexity of co-occurrence in which other psychological disorders must be considered. There are also issues related to measuring family violence without context (e.g. it is important to make a correct determination of the predominant aggressor - a victim could anticipate a violent incident and behave aggressively to protect a child) and where the pattern of coercive control is not captured.

### ***Problem gambling and child abuse and neglect, and intra-familial violence***

There is some empirical evidence suggesting a high incidence of violence in problem gambling families that is experienced both by adults and by children (Bland, Newman, Orn, & Stebelsky, 1993; Gayford, 1975; Lesieur & Rothschild, 1989; Lorenz, 1985; Lorenz & Shuttlesworth, 1983; Tran, 1999). Research into family violence suggests significant co-occurrence of IPV and child abuse and neglect suggesting that these issues cannot be examined independently (FVDRC, 2014). An early study found that 43% of Gam-Anon members reported that they had been emotionally, verbally and physically abused by their gambling partner or spouse (Lorenz & Shuttlesworth, 1983). That study also found that 10% of the sample reported that their problem gambling partner or spouse had abused the children. Lesieur and Rothschild (1989) found that children of Gamblers Anonymous and Gam-Anon members were more

likely to have experienced parental violence and abuse (e.g. throw something; slap or spank; kick, bite or hit with a fist; and hit or try to hit with something) than a nationally normed sample. A community survey in the Canadian province of Alberta revealed that diagnosed pathological gamblers reported higher rates of spousal abuse (hitting or throwing things more than once at spouse or partner) (23%) and child abuse (hitting child) (17%) than the general population (Bland et al., 1993). More recently, a study drawing on a clinical sample of 605 female substance abusers revealed that problem gamblers were more likely to report childhood abuse by parents than non-problem gamblers (Cunningham-Williams, Abdullah, Callahan, & Cottler, 2007). In the previously mentioned nationally representative sample of adults from the USA, pathological gambling was associated with increased odds of perpetrating child abuse even after controlling for socio-demographic variables and mental disorders (Afifi et al., 2010).

One recent study utilised a sample representative of the general population in Australia (n=3,953) to measure problem gambling severity (via the Problem Gambling Severity Index), the presence or absence of family violence perpetration or victimisation (noting the family member involved), mental health problems, alcohol use problems and substance use (Dowling, Jackson & Thomas, 2010). Family violence in that study was measured using a screening item based on a condensed version of the HITS Scale (Sherin, Sinacore, Li, Zitter & Shakil, 1998): *In the past 12 months, has a family member physically hurt you, insulted or talked down to you, threatened you with harm, or screamed or cursed at you? In the past 12 months, have you physically hurt, insulted or talked down to, threatened with harm, or screamed or cursed at a family member?* The aims of that study were to establish the co-occurrence of problem gambling and family violence, and identify which family members of problem gamblers were victims and perpetrators of family violence. The study demonstrated a significant positive relationship between problem gambling and family violence victimisation (33% of problem gamblers reported they had experienced some victimisation vs. 9% of non-problem gamblers) which remained significant after controlling for socio-demographic variables and comorbid factors (mental health, alcohol use problems and substance use). There was also a significant positive relationship between problem gambling and family violence perpetration (30% of problem gamblers reported they had perpetrated violence vs. 9% of non-problem gamblers) which did not remain after controlling for comorbid conditions. Male problem gamblers were more likely to be both victims and perpetrators of family violence. Male and female in-laws and fathers displayed the most victimisation and perpetration; this demonstrates the importance of examination of family violence and gambling beyond IPV. Alcohol use problems and substance use also increased the likelihood of family violence victimisation and perpetration. The authors stressed the importance of comorbidities in the investigation of family violence and problem gambling; however, a major weakness of that study was a lack of investigation of the type and severity of the occurring violence due to the condensing of the HITS scale's four items into a single item. This meant that physical violence could not be distinguished from verbal, psychological and emotional abuse, and the severity of each of these forms of violence and abuse was not measured. A further weakness is that the HITS scale focuses only on behavioural violence and abuse, and not on the effects such as the level of fear and intimidation.

Recent research has explored the patterns and prevalence of family violence among treatment-seeking problem gamblers and family members, investigating prevalence, comorbidity, impact and coping with family violence and problem gambling (Dowling, Jackson, et al., 2014; Suomi et al., 2013). That large-scale study was carried out in both Australia and Hong Kong. Clients from 15 Australian treatment services were systematically screened for problem gambling using the Brief Bio-Social Gambling Screen, and for family violence again using the modified single condensed victimisation and perpetration items the HITS Scale. Participants were recruited from gambling services (n=463), family violence services (n=95), alcohol and drug services (n=47), mental health services (n=51) and financial counselling services (n=48). The prevalence of any family violence in the gambling sample was high at 33.9% (11.0% victimisation only, 6.9% perpetration only, and 16.0% both victimisation and perpetration). Female gamblers were significantly more likely to report victimisation only (16.5% vs. 7.8%) and both victimisation and perpetration (21.2% vs. 13.0%) than male gamblers. The rate for

family violence victimisation in the problem gambler sample was 27%, which was around half that reported by the available IPV studies (e.g. in Dowling, Suomi et al.'s 2014 review). As the authors noted, the failure to differentiate types and degree of violence (i.e. to distinguish between physical violence and verbal abuse) and to assess financial and sexual abuse could have affected prevalence rates in the study.

The results also suggested reciprocal violence occurring in problem gambling households whereby the highest proportion of the problem gambler sample reported both victimisation and perpetration (Dowling, Jackson, et al., 2014). It is interesting that gamblers most commonly endorsed their parents as both the perpetrators and victims of family violence, followed by current and former partners, and broadens discussion of violence occurring outside the intimate partner and parent-child dyads. However, the lack of distinction between the levels and types of violence has again made exploration of the nature of this relationship difficult. The prevalence of problem gambling in the family violence sample was two percent whilst the prevalence of family violence was significantly higher amongst the samples with alcohol and drug issues or mental health issues (84% and 62% respectively). This again suggests the possibility that the substantial comorbidity between problem gambling and family violence may be better accounted for by a high comorbidity with alcohol and drug use problems and other psychiatric disorders.

Results from the Hong Kong arm of the project related to family coping and gambling impacts involved a sample of 103 treatment-seeking Chinese family members of problem gamblers (Chan, Dowling, Jackson, & Shek, 2016). That study found that the majority of family members were a partner or ex-partner of the gambler, with low or no income, and were experiencing high levels of psychological distress, poor to fair general health and poor quality of life. Family member impacts were positively and significantly correlated to all family coping strategies and psychological distress. Tolerant-inactive coping (putting up with a relative's gambling, making sacrifices because of it) had the strongest relationship with family member impacts and psychological distress. The authors argued that concerned affected others would likely benefit from family member-specific treatment groups which aim to enhance family coping. However, further investigation is needed to understand impacts on, and support needs of, family members other than partners in Chinese communities.

Many questions arise and remain when researchers consider the precise nature of the relationship between family violence and gambling. Contemporary research in this area is required to examine the way in which violence in the family is related to both the gender of the problem gambler and who is doing the gambling (Vander Bilt, & Franklin, 2003). For example, we do not know much about how the dynamics of female-to-male violence and male-to-female violence differ in the context of problem gambling. Preliminary findings from help-seeking family members of problem gamblers in the Australian project suggested a bidirectional relationship of family violence between problem gamblers and significant others (Suomi et al., 2013). In that study, 120 family members were screened for problem gambling and family violence at a range of clinical services, and 52.5% reported some form of family violence. Where family members reported violence, they most commonly reported both victimisation and perpetration (21.6%), followed by victimisation only (20%) and perpetration only (10.8%). Problem gambler involvement in violence was high in relation to both victimisation and perpetration. Family members identified 94 perpetrators of violence and 41 (43.6%) were problem gamblers; 70 victims of a family member's violence were identified and 28 (40%) of these victims were problem gamblers. Females were more likely to be only victims (i.e. to show no reciprocal violence) and were less likely to report no violence in comparison to males. Current and ex-partners and parents were most commonly identified as perpetrators and victims of family violence in that study.

Additionally, Vander Bilt et al. commented that "violent behaviour can be antecedent or consequent to excessive gambling... it is difficult to determine which behaviour came first. Is violence a way of releasing the stress of financial loss, deception, and other consequences of gambling, or is gambling a way of escaping from the cycle of violence and the frustrations of family conflict?" (Vander Bilt, &

Franklin, 2003, p112). As previously mentioned, it is possible that both are related to a third factor such as impulse control, alcohol abuse and/or psychological disorder. Whilst an emerging body of literature is documenting that a relationship exists, there has been far less research into the mechanisms of family violence and gambling - how the relationship actually works. Within the Australian study, 32 in-depth interviews were held with family members recruited from problem gambling treatment agencies in which questions regarding the relationship between, and impacts and coping strategies around, gambling and family violence were asked. Findings suggested that gambling problems precede both victimisation and perpetration of family violence, and the authors commented that: “Victimisation was seemingly related to an immediate aggressive response to gambling losses by the problem gambler whereas perpetration against the problem gambler was related to underlying anger and mistrust” (Suomi et al., 2013, p12). The suggestion is that the stress and strain of both being, and living with, a problem gambler is a risk factor for family violence. Problem gambling related stress (e.g. produced by financial losses, poor communication and loss of trust) were hypothesised to lead to chronic stress, family conflict and the perpetration of family violence by family members against a gambler; conversely, gambling stress can lead to gamblers lashing out at those around them (Dowling, 2014). However, the possibility remains that gambling is an escape response from family violence or that the apparent relationship is being driven by other factors.

As Dowling concluded, regardless of the temporal sequence “it is likely that the relationship between problem gambling and the experience of IPV involves a cyclical process, where one behaviour serves to exacerbate the other” (Dowling, 2014, p13). This is also suggested by the outcome of the recent systematic review which implicated several factors in the relationship between gambling problems and being a victim of IPV (e.g. less than full employment, and anger problems) and perpetrating IPV (e.g. younger age, less than full employment, anger problems, impulsivity, and alcohol and drug use) (Dowling, Suomi et al., 2014). Longitudinal studies of the same people over time, are required to more fully understand temporal and causal relationships investigating the changing relationships between IPV and family violence with other behaviours.

## 2.5 Conclusion

From the foregoing, it can be concluded that research has revealed a relationship between the presence of problem gambling and vulnerability to family violence but further study is needed to detail links with mental disorders including alcohol and substance abuse. Screening and treatment approaches that take account of the full range of gambling problems, family violence, alcohol and drug use problems and mental health issues are already warranted by the research to date.

While preliminary findings suggest that family violence in a gambling context is reciprocal between gamblers and significant others and that gambling problems precede family violence victimisation and perpetration (Suomi et al., 2013), the exact nature of the relationship between problem gambling and family violence is yet to be determined.

## **3 RESEARCH METHODS**

### **3.1 Ethics approval**

An ethics application was submitted to the AUT Ethics Committee (AUTEC), which is a Health Research Council accredited human ethics committee. AUTEC considers the ethical implications of proposals for research projects with human participants. All participant materials (i.e. information sheet and consent form), data collection processes and other relevant documents (such as the participant safety protocol) were submitted. AUT is committed to ensuring a high level of ethical research and AUTEC uses the following principles in its decision making in order to enable this to happen:

Key principles:

- Informed and voluntary consent
- Respect for rights of privacy and confidentiality
- Minimisation of risk
- Truthfulness, including limitation of deception
- Social and cultural sensitivity including commitment to the principles of the Treaty of Waitangi/Te Tiriti O Waitangi
- Research adequacy
- Avoidance of conflict of interest.

Other relevant principles:

- Respect for vulnerability of some participants
- Respect for property (including University property and intellectual property rights).

Ethics approval for the research was granted on 23 May 2013 (reference 13/73). The letter of approval is shown in Appendix 1.

During the research, the following measures were taken to protect the identity of the participants:

- All participants were allocated a code by the research team to protect their identities
- No personal identifying information has been reported.

Additionally, participants were informed that participation in the research was voluntary and that they could withdraw at any time, prior to the completion of data collection.

### **3.2 Consultation and training**

#### ***Consultation***

Safety, integrity and appropriateness of the research process were key considerations. Prior to study commencement, therefore, the research team liaised and consulted with the following family violence charitable organisations:

- SHINE (provides support and information for people living with abuse, or who know someone living with abuse, via a free national helpline)
- Tu Wahine Trust (a West Auckland based service operating in a whānau-ora oriented way for wahine, tamariki and whānau who have been involved in whānau and sexual violence)
- Hamilton Abuse Intervention Project (a Hamilton-based family violence support service).

These organisations provided advice to the research team, and assisted in supporting safe research processes and referrals for participants who reported family/whānau violence.

Prior to study commencement and throughout the research, the researchers consulted with the Problem Gambling Foundation of New Zealand (PGF), including their Pacific and Asian units (Mapu Maia and Asian Family Services), and The Salvation Army Oasis Centres (Oasis) in regard to study processes, participant recruitment and the optimal way of supporting participants who reported family/whānau violence.

Furthermore, the study team included two senior researchers with expertise in family/whānau violence as well as researchers experienced in gambling research and biostatisticians. The two family/whānau violence experts were Professor Denise Wilson and Professor Jane Koziol-McLain. They were involved in all stages of the study and ensured that the family violence questions were designed in an appropriate and sensitive way to capture relevant information. Professor Denise Wilson is of Ngāti Tahinga (Tainui) descent and ensured that the study was relevant to, and respectful of, Māori. Professor Wilson was involved in the development of the Ministry of Health's Violence Intervention Programme and is currently a member of the Health Quality and Safety Commission's Family Violence Death Review Committee and Roopū Māori. She is also a co-author of The People's Report for the Glenn Inquiry into child abuse and domestic violence.

### ***Training***

SHINE provided one-day training to the research staff in how to work and respond effectively with people who are experiencing family/whānau violence and who are at risk of immediate harm. This was of particular importance for the researchers who conducted interviews with participants, to ensure participant safety.

Additionally, research staff received formal training in suicide prevention education so that they could effectively respond to participants with suicidal intentions; again this was to maximise participant safety.

### ***Safety protocol***

As safety of participants was a paramount consideration, a safety protocol for research staff conducting telephone interviews with participants was developed with the assistance of SHINE. Additional to the training already detailed, research staff were trained in the safety protocol which included:

- Confidentiality of information and how to inform participants if confidentiality had to be broken due to serious safety concerns for them or their children
- Ensuring safety of participants before commencing the telephone interview including a process for participants to terminate the call if they were at any risk of danger (e.g. if there was a possibility of a perpetrator overhearing the conversation)
- Assessment of a situation if violence occurred during an interview and processes for dealing with that, if necessary (e.g. calling the police)
- Assessing violence risk from questionnaire responses and offering participants information about support, if required.

### 3.3 Study design

#### 3.3.1 Hypothesis

Substantial family/whānau violence co-exists with problem gambling and there will be other co-existing issues many of which will be significantly associated with family/whānau violence.

#### 3.3.2 Aims

The research comprised two phases, each of which had separate aims.

##### *Phase I*

- Establish the co-occurrence of problem gambling and family/whānau violence in new clients of specific problem gambling help-seeking populations
- Determine the way in which socio-demographic (e.g. age and ethnicity), gambling mode (e.g. electronic gaming machines, casino table games and horse/dog betting) and co-existing conditions (e.g. alcohol and drug misuse/dependence, and general mental health) vary with problem gambling and family/whānau violence.

##### *Phase II*

- Utilise in-depth measures of co-existing issues (e.g. mental health, alcohol and drug misuse/dependence, and smoking) to explore associations between problem gambling and family/whānau violence
- Examine family/whānau violence screening in specific clinical problem gambling populations
- Explore the impacts and coping with problem gambling and family violence on whānau/family.

#### 3.3.3 Recruitment and interviewing

Participants for Phase I and Phase II were recruited nationwide from three national problem gambling treatment services (two face-to-face services and one telephone service) from June 2013 to March 2015. New clients (gamblers and others affected by someone else's gambling<sup>8</sup>) presenting to the services, and clients who had been in counselling for less than three months, who met the inclusion criteria, were invited to participate in the research by their counsellor. Inclusion criteria were:

- Aged 18 years or older
- Able to provide informed consent
- Presented for counselling alone (i.e. without family members or any other person present). This criterion was to protect client safety due to possible risks when discussing family violence in front of potential perpetrators.

Counsellors informed eligible clients about the research and explained that the research was: 1) to document how often family violence and gambling are occurring together, and 2) to try and understand the way family violence and gambling affect each other. They let clients know that they could help with just the first or with both of the research aims, that participation was entirely voluntary, and that the research was for participants who had not experienced any family violence as well as participants who had experienced family violence. Family/whānau violence was defined as conduct, whether actual or threatened, by a person towards, or towards the property of, a member of the person's family/whānau that causes that or any other member of the person's family/whānau to fear for, or to be apprehensive

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<sup>8</sup> Affected other participants were recruited from clients presenting at services in their own right (i.e. irrespective of the gambler/s in their lives) so they may, or may not have been, related to gambler participants in this study.

about, his or her personal wellbeing or safety; with the focus in this research being on physical, psychological, emotional, sexual and financial abuse<sup>9</sup>.

Counsellors at the face-to-face services gave eligible clients the ethics approved participant information sheet and discussed this and the informed consent form with them. Each client was then asked by their counsellor whether they would like to take part in either Phase I only (screening questions on gambling and family violence), or Phase I plus Phase II (screening questions on gambling and family violence, plus a follow up telephone interview about gambling and family violence). Clients were informed that they could decide to take part in the research then, or they could take the information away to consider (and discuss with others), then make a decision in their next counselling session. Clients who agreed to participate in the research signed the consent form prior to participation. Counsellors at the telephone service followed the same process except that the participation information sheet was Emailed or posted to the client, and consent to participate was given verbally. Thus, Phase I participants were a self-selected convenience sample of new clients (or existing clients of not more than three months duration) accessing problem gambling treatment services, and Phase II participants were a self-selected sample of Phase I participants. Details of ineligible clients and those who declined to participate (e.g. number who declined to participate in Phase I, and reasons for declining either phase) were not recorded.

For clients who agreed to participate in Phase I, their counsellor asked them some brief screening questions<sup>10</sup> on gambling and family/whānau violence; this took 5 to 10 minutes. Responses were recorded on paper versions of the screening questionnaire. Phase I participants who agreed to participate in Phase II, provided telephone contact details at the end of the screening questionnaire and indicated the best days of the week and times of day that they could be contacted by an AUT researcher for the Phase II interview. Recruitment continued until a minimum of 200 participants had been recruited into Phase II, which had been calculated as the number required to allow meaningful analyses by the four major ethnicities (Māori, Pacific, Asian and European/Other). The final numbers were 454 participants in Phase I and 208 participants in Phase II.

Phase II comprised a comprehensive questionnaire interview (taking 45 to 60 minutes) with the interviews generally conducted by telephone, in English, by trained<sup>11</sup> researchers. Responses were recorded on paper versions of the questionnaire. For a few of the Pacific and Asian participants for whom English was a second language, the interviews were conducted by telephone in the participant's own language, either by a trained researcher or by a counsellor from their treatment service; however, all responses were recorded in English. Participants who completed a Phase II interview were given a \$40 petrol voucher in recognition of their time.

### **3.3.4 Survey instruments**

#### **Phase I**

Screening questions included:

- The primary mode of gambling causing the problem
- Problem Gambling Severity Index (PGSI)
- HITS scale for family violence with an additional sexual violence question
- Demographics (gender, age, ethnicity, relationship status, living arrangements).

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<sup>9</sup> Financial abuse includes theft or misuse of money or property (e.g. household goods and jewellery) and anecdotally is an issue in families whereby a problem gambler financially abuses a family member to obtain funds for gambling (e.g. through theft, fraud, wrongful use of power of attorney).

<sup>10</sup> The screening questionnaire was developed by the researchers and provided to the counsellors. Researchers and counsellors discussed the best way of conducting the screening, particularly for participants whose first language was not English.

<sup>11</sup> See section 3.2 on Consultation and training.



The *Problem Gambling Severity Index (PGSI)* is a nine-item screen (Appendix 6) which assesses problem gambling in a past 12-month timeframe (Ferris & Wynne, 2001). From their scores, participants are categorised as non-problem gambler (score 0), low-risk gambler (score 1 - 2), moderate-risk gambler (score 3 - 7) or problem gambler (score 8 - 27).

The *HITS scale* comprises four items (Appendix 6) which assess family violence (physical and emotional abuse) in a past 12-month timeframe, from victim and perpetrator perspectives (Sherin, Sinacore, Li, Zitter, & Shakil, 1998). Each item is scored on a five-point frequency scale, from never (1) to frequently (5). Family violence is suspected when respondents score higher than 10 on the HITS. For the purpose of this study, scoring was reduced to a simple Yes/No format; family violence was suspected if respondents gave a “yes” response to any of the questions. There was a follow-up probe to inquire about the relationship between themselves and the victim/perpetrator. An additional question assessing sexual abuse was added, using the Partner Violence Screen (Parker, McFarlane, Soeken, Torres & Campbell, 1993).

## Phase II

The Phase II questionnaires measured the following constructs using validated tools across the participant groups as outlined in Table A.

**Table A: Phase II questionnaire measures**

Measures	Problem gamblers		Affected others	
	No violence reported	Violence reported	No violence reported	Violence reported
Gambling Motives Questionnaire	✓	✓		
Problem Gambling Severity Index (PGSI)	✓	✓		
Victorian Problem Gambling Family Impact Scale (problem gambler version)	✓	✓		
Victorian Problem Gambling Family Impact Scale (family member version)			✓	✓
Coping Questionnaire	✓	✓	✓	✓
Strengths and Difficulties Questionnaire	✓	✓		
Psychological distress (Kessler-10)	✓	✓	✓	✓
Buss-Perry Aggression Questionnaire - short version	✓	✓	✓	✓
Difficulties in Emotion Regulation Scale	✓	✓	✓	✓
Symptom Rating Test - short version	✓	✓	✓	✓
Interpersonal Support Evaluation List - short version	✓	✓	✓	✓
HITS scale (victim and perpetrator)	✓	✓	✓	✓
Woman Abuse Screen Tool - short version	✓	✓	✓	✓
Revised Conflict Tactics Scale - short version	✓	✓	✓	✓
Composite Abuse Scale	✓	✓	✓	✓
Alcohol Use Disorders Identification Test (AUDIT)	✓	✓	✓	✓
Drug Abuse Screening Test (DAST)	✓	✓	✓	✓
Smoking measure	✓	✓	✓	✓

The *Gambling Motives Questionnaire* (GMQ) is a motivation scale adapted from the Drinking Motives Questionnaire (DMQ) (Cooper, Russell, Skinner, & Windle, 1992). It comprises 15 items evenly distributed over three subscales: enhancement motives (internal positive reinforcement, i.e. gambling to increase positive emotions), coping motives (internal negative reinforcement, i.e. gambling to reduce or avoid negative emotions), and social motives (external positive reinforcement motives, i.e. gambling to increase social affiliation). Respondents indicate how often they think they gamble (or would gamble) for each reason on a four-point scale from almost never/never (1) to almost always (4). Problem gamblers have been shown to score higher on all three subscales than non-problem gamblers (Stewart & Zack, 2008).

*Problem Gambling Severity Index* - see description on previous page.

Two versions of the *Victorian Problem Gambling Family Impact Scale* were developed by Jackson, Thomas, Thomason, Smith, Crisp, Borrell, Ho, & Holt in Melbourne, Australia; one for problem gamblers, which measures gamblers' perceived impact of their gambling on their family members, and the other for other people affected by someone else's gambling. The scale comprises 14 items, which measure the frequency of the impacts (never to often) in a past three-month timeframe (Jackson et al., 1998, p.190).

The *Coping Questionnaire*, designed for spouses of male problem drinkers (Krishnan & Orford, 2002), was adapted for family members of problem gamblers (Krishnan & Orford, 2002). With permission, the Melbourne (Australia) based Problem Gambling Research and Treatment Centre (PGRTC) further adapted the questionnaire to create a version for problem gamblers. The questionnaire comprises 30 statements that measure the ways in which affected others have coped with a gambler's problem gambling in the past three months. There are three subscales: engaged coping, tolerant-inactive, and withdrawal.

The *Strengths and Difficulties Questionnaire* (SDQ) is a 25-item behavioural screening questionnaire designed to be completed by parents of children aged three to 16 years and focuses on five subscales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behaviour (Goodman, 1997).

The *Kessler-10* is a 10-item questionnaire providing a continuous measure of general psychological distress that is responsive to change over time. It also provides a summary measure indicating probability of currently experiencing an anxiety or depressive disorder (Kessler & Mroczek, 1994). From their score, participants are characterised as having a low level of psychological distress (score 10 - 15), moderate level of distress (score 16 - 29) or high level of distress (score 30 - 50).

The anger and hostility subscales from the *Buss-Perry Aggression Questionnaire - short version* were used (Buss & Perry, 1992; Bryant & Smith, 2001). The subscales each comprise three items to which respondents report how true or untrue each statement is.

The *Difficulties in Emotion Regulation Scale* was developed as a self-assessment tool to measure how much difficult emotions are affecting daily life (Gratz & Roemer, 2004). It has six subscales: non-acceptance, goals, impulse, aware, strategies and clarity. Three subscales were used in this study: impulse (difficulty controlling impulses), goals (difficulty engaging in goal-oriented behaviours) and strategies (lack of access to emotion regulation strategies).

The *Symptom Rating Test* was originally designed as a self-rated test to measure changes in levels of distress for patients receiving pharmaceutical interventions such as in clinical drug trials. There are several versions now in common use and the *short version* comprises 30-items with four subscales assessing anxiety, depression, somatic symptoms and inadequacy symptoms (Kellner & Sheffield, 1973).

The short version of the *Interpersonal Support Evaluation List (ISEL-12)* comprises 12 items, which measure perceived social support (Cohen, Mermelstein, Kamarck & Hoberman, 1985). There are three subscales, each comprising four items, measuring appraisal support (support useful for self-evaluation such as esteem), belonging support (feeling a sense of social belonging) and tangible support (actual support from another person). Each item is measured on a four-point scale from ‘definitely false’ to ‘definitely true’.

The *HITS scale* - see previous description.

The *Woman Abuse Screen Tool - short version* is a two-item screen, which assesses tension in a relationship and how partners work out arguments. Scoring of both items is on a three-point scale and respondents who score positively on the most extreme of both scales should be further investigated for the presence of violence/abuse (Brown, Lent, Brett, Sas & Pederson, 1996).

The *Revised Conflict Tactics Scale - short version* measures intimate partner violence and comprises 20 items, which measure negotiation, physical abuse and psychological aggression. It also measures the mutuality of the behaviours (i.e. perpetration and victimisation) (Straus & Douglas, 2004).

The *Composite Abuse Scale (CAS)* emotional abuse and harassment subscales were used to measure the frequency of the partner’s abusive behaviours in a past 12-month timeframe (Hegarty, Sheehan & Schonfeld, 1999). The emotional abuse subscale comprises 11 items on verbal, psychological, dominance and social isolation abuse items whilst the harassment subscale comprises four items. Of note, the CAS items that measure the experience of abuse (rather than acts of abuse) have not been adapted for men and were, therefore, not included in the questionnaire.

To identify risky alcohol consumption the 10-item *Alcohol Use Disorders Identification Test (AUDIT)*; Saunders et al., 1993) was administered. This screening instrument has a cut-score of 8 to assess risky alcohol consumption.

A brief version (10-item scale) of the *Drug Abuse Screening Test (DAST)*; Skinner, 1982) was administered to assess drug abuse. From their score, participants are characterised as having no problems (score 0), low level of problems (score 1 - 2), moderate level of problems (score 3 - 5) and substantial level of problems (score 6 - 10).

Participants were also asked three questions about tobacco use relating to ever having smoked, having smoked more than 100 cigarettes in whole life, and current smoking frequency.

Other information collected<sup>12</sup> included:

- Additional demographic data (employment status, income support, educational level, annual personal income)
- Gambling behaviour (own behaviour for gamblers, gambler’s behaviour for affected others; participation, expenditure, perception of problem, help-seeking)
- Number of family members with an issue with gambling and relationship to respondent
- The presence of co-existing problems in family/whānau members of mental health issues, substance abuse and alcohol abuse (single question items)
- A question on sexual violence (see Appendix 6)
- Questions on financial abuse (adapted from the Elder Abuse Assessment Tool Kit; Durham Elder Abuse Network, 2011) (See Appendix 6)
- Qualitative data on impacts of gambling.

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<sup>12</sup> Primary mode of gambling and demographic data collected for Phase I were not repeated in Phase II.

### 3.3.5 Data analysis

#### Quantitative data analyses

Phase I and Phase II data responses recorded on paper were entered into the SPSS 20.0 statistical package and then exported to SAS version 9.4 for statistical analysis.

Descriptive summary tables were created for data from Phase I and from both Phase 2 questionnaires ('Gambler' and 'Affected other' versions).

Logistic multivariable modelling of the following outcomes for gamblers was undertaken using the Phase II 'Gambler' data: 'Any Violence Perpetration (excluding financial violence)' and 'Any Violence Victimization (excluding financial violence)'.

All covariates that had a p-value of  $\leq 0.2$  from the univariable models (see Appendices 2 and 3) were considered for selection into the multivariable model, where numbers allowed (except for financial violence covariates; and for victimisation covariates where a perpetration outcome was being modelled, and vice versa). A manual stepwise procedure was undertaken, with forward selection followed by possible backward selection. At each step, a likelihood ratio test was performed comparing the current model with a model that had the addition of one of the variables to be considered for selection. This was done for each variable under consideration and the variable that had the most significant p-value for the likelihood ratio test was then chosen for entry into the model for that step. At each step, backward selection was also done by removing any variables at each step that had p-values for the Wald Chi-Square test  $> 0.05$ . The procedure stopped when a variable had been removed and further forward selections failed to enter a new variable. P-values for each covariate in each final model were presented, together with Odds Ratios (plus 95% confidence intervals) for each covariate category versus an appropriate reference group.

#### Qualitative data analyses


Interviewers took bullet-point notes<sup>13</sup> on participants' responses to all open-ended questions in Phase II<sup>14</sup> such as "What impact do you think your gambling has had on your family/whānau members?" Where possible, the notes were recorded verbatim but for long responses, briefer notes were recorded. These verbatim responses and notes were treated as qualitative data and analysed using a qualitative content analysis approach (Patton, 1990; Graneheim & Lundman, 2004; Hsieh & Shannon, 2005). This procedure involves systematically identifying and extracting meaningful constellations of words or statements that relate to the same central meaning in order to create evidence about the content of a qualitative dataset overall. Analysis of what the text says deals with the visible and obvious components that are referred to as the "manifest content" (Graneheim & Lundman, 2004). Two researchers independently read all of the data related to each open-ended question. They made brief notes on the major aspects of each response, and on interesting or particularly relevant information. Each researcher then assigned codes to the data to describe what was being said (each participant's response could result in one or more codes). For example, for the open-ended question above, each code represented a category of impacts participants reported their gambling had on their family/whānau members. The researchers then met to compare coding and, following discussion, verbally agreed on the final structure of the categories. Codes were also quantified to enable a sense of how common different kinds of responses were. Once coded, further analysis involved looking across the coding within each question and across similar questions (for example, the question detailed above relates to the following question:

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<sup>13</sup> The Phase II interviews were not recorded to re-assure participants that their responses would stay confidential and unidentifiable by other people.

<sup>14</sup> Open-ended responses were not collected in Phase I.

“What impact do you think your gambling has had on your home life?”) to identify if the codes could be linked in a meaningful way and discussed as major and/or minor content categories. The overarching goal of the qualitative analyses was to provide a coherent and inclusive summary of the kinds of responses participants made to the open-ended questions that were asked of them.



## 4 RESULTS

This chapter details the socio-demographic and gambling profile of participants (section 4.2), and results from Phase I (section 4.3) and Phase II (section 4.4 to section 4.8). The Phase I results document the main mode of problematic gambling, problem gambling severity and family/whānau violence (both perpetration and victimisation). The more detailed Phase II results cover gambling behaviour, impacts of gambling, coping behaviours of family/whānau members, co-existing issues, family/whānau violence (both perpetration and victimisation), intimate partner violence, and risk and protective factors.

As this study is primarily investigating the co-existence of family/whānau violence in populations seeking help for gambling-related issues, results have been presented with a focus on differentiating between gamblers and affected others in relation to perpetrating, or being victims of, family/whānau violence. Although an analysis by gender breakdown is more traditional, the sample sizes precluded additional gender-based analyses.

### 4.1 Descriptor definitions

Throughout this chapter, results have been presented with various descriptors. To aid in understanding the results, these descriptors are clarified below.

#### Gambler and affected other

When data are presented by ‘gambler’ and ‘affected other’, ‘gambler’ refers to participants who were recruited because they accessed a treatment service for their own gambling, and ‘affected other’ refers to participants who were recruited because they accessed a treatment service as a person concerned by someone else’s gambling (irrespective of whether or not they also gambled).

#### Victim and perpetrator

When data are presented by ‘victim’ and ‘perpetrator’, this refers to whether participants reported receiving violent behaviour (victim) or committing violent behaviour (perpetrator).

#### Family/whānau violence and intimate partner violence

In this study, family/whānau violence covers not only physical violence and coercive control (most often thought of as violence), but also verbal, psychological and emotional abuse (more often thought of as conflict); these were measured using the HITS scale. Sexual and financial abuse questions were also included. Violence was measured as occurring (Yes or No) in the past 12 months. Severity and frequency of the violence have not been reported.

Data pertaining to family/whānau violence include intimate partner violence, that is to say, they include violence to/from any members of a family or whānau whether intimate or not. However, intimate partner violence has also been presented separately as a majority of participants reported family/whānau violence to be to/from an intimate partner.

## 4.2 Participant profile

Four hundred and fifty-four participants were recruited to Phase I (the screening phase) of the study. Of these, 81.5% (n=370) were gamblers and 18.5% (n=84) were affected others (people affected by someone else's gambling)<sup>15</sup>. Two hundred and eight (46%) of the Phase I participants agreed to participate in Phase II (the more intensive questionnaire phase). Gamblers comprised 80% (n=166) of the Phase II sample and affected others comprised 20% (n=42). Thus the same proportion of gamblers and affected others participated in both phases (Table 1).

**Table 1: Participation in Phase I and Phase II**

Participant type	Completed Phase I		Completed Phase II	
	N	(%)	N	(%)
Gambler	370	(81.5)	166	(79.8)
Affected other	84	(18.5)	42	(20.2)
<i>Total</i>	<i>454</i>	<i>(100.0)</i>	<i>208</i>	<i>(100.0)</i>

The demographic profile of participants in Phase I and Phase II is shown in Table 2. No major differences were noted in the population profile between the phases. Slightly more than half of the gambler participants were male in both phases, whilst for affected others two-thirds to three-quarters were female. Approximately two-fifths to half of all participants were of European/Other ethnicity. For the other ethnic groups there was a slight difference between the profile of gamblers and affected others. About one-fifth of gamblers and about one-tenth of affected others were Māori, about one-tenth of gamblers and about one-sixth of affected others were Pacific people, and approximately one-fifth to one-quarter of gamblers and one-quarter to one-third of affected others were of Asian ethnicity. About half of the participants were aged 25 to 44 years with the next highest proportion being in the 45 to 64 year age group. A majority of participants were living in households with at least one other person, though about 15% of gamblers were living on their own.

Some additional demographic details were collected from Phase II participants, which were not collected at Phase I (to reduce respondent burden) (Table 2). Approximately two-thirds of the gamblers and affected other participants were employed (either full or part-time). About a third of gamblers and affected others were receiving a benefit (e.g. unemployment benefit, sickness benefit). Twice as many gamblers reported that their highest educational qualification was secondary school level compared with affected others (39% vs. 19%); the reverse was noted for highest qualification of university degree or higher with half as many gamblers achieving this level compared with affected others (15% vs. 33%). The majority of gamblers and affected others reported an annual personal income of \$60,000 or less.

The demographic profile of the population in this study varies slightly from that reported by the Ministry of Health in their 'intervention client data' statistics (Ministry of Health, 2016). In the July 2013 to June 2014 year (approximately the time of study data collection), there was an even gender split for clients accessing Ministry of Health funded face-to-face services for problem gambling<sup>16</sup>. Twenty-nine percent were Māori, 23% Pacific, 7% Asian and 41% were of Other ethnicity (included European). However, these data were for gamblers and affected others combined, with a split of 69% gamblers and 31% affected others. Thus although the data cannot be directly compared with the current study where gamblers and affected others are considered separately, it appears that the current study proportionally included slightly more gamblers than affected others compared to the general treatment-seeking

<sup>15</sup> The affected other participants were recruited separately from the gambler participants and may or may not have been associated with gambler participants in this study, i.e. they were a separate cohort. No data were collected to ascertain any relationship of affected other participants to gambler participants.

<sup>16</sup> Accessed full interventions excluding brief interventions.

population. It may also have included slightly more females, and has over-sampled Asian people, which proportionally reduced the percentage of other ethnicities.

**Table 2: Demographics for participants in Phase I and Phase II**

Demographic variable		Completed Phase I (N=454)				Completed Phase II (N=208)			
		Gambler		Affected other		Gambler		Affected other	
		n	(%)	n	(%)	n	(%)	n	(%)
Gender	Female	370	(43.2)	84	(72.6)	166	(42.8)	42	(69.0)
	Male		(56.8)		(27.4)		(57.2)		(31.0)
Age group	20-24 years	366	(8.5)	83	(4.8)	164	(7.9)	42	(4.8)
	25-44 years		(51.9)		(44.6)		(47.0)		(50.0)
	45-64 years		(33.6)		(49.4)		(37.2)		(42.9)
	65+ years		(6.0)		(1.2)		(7.9)		(2.4)
Ethnicity - prioritised <sup>†</sup>	Māori	368	(17.9)	84	(11.9)	164	(18.9)	42	(11.9)
	Pacific		(9.8)		(14.3)		(12.2)		(16.7)
	Asian		(25.0)		(32.1)		(17.7)		(26.2)
	European/Other		(47.3)		(41.7)		(51.2)		(45.2)
Relationship status	In relationship, not living with partner	370	(13.2)	84	(2.4)	166	(10.2)	42	(2.4)
	Married/civil union/de facto, living with partner		(48.9)		(72.6)		(49.4)		(73.8)
	Married/civil union, not living with partner		(4.1)		(11.9)		(3.0)		(9.5)
	Single, not in relationship, widowed		(33.8)		(13.1)		(37.3)		(14.3)
Living arrangements	Couple no children	369	(19.0)	84	(15.5)	165	(17.6)	41	(4.9)
	Couple with children		(33.6)		(58.3)		(33.9)		(73.2)
	Group/share household		(15.2)		(9.5)		(15.8)		(7.3)
	One parent family		(12.2)		(10.7)		(12.1)		(7.3)
	Other - controlled share		(1.4)		.		(0.6)		-
	Other - family		(4.3)		(2.4)		(3.6)		(4.9)
Employment status <sup>‡</sup>	Single person household		(14.4)		(3.6)	166	(16.4)	42	(2.4)
	Employed						(66.9)		(64.3)
	Unemployed						(18.7)		(16.7)
Income support <sup>‡Δ</sup>	Student/homemaker/retired					166	(14.5)	42	(19.1)
	None						(60.2)		(59.5)
	Benefit						(32.5)		(38.1)
Highest qualification <sup>‡</sup>	Superannuation/student allowance					165	(7.2)	42	(2.4)
	None/below secondary school level						(16.4)		(7.1)
	Secondary school qualification						(38.8)		(19.1)
	Trade/technical qualification						(11.5)		(26.2)
	Undergraduate certificate/ diploma						(18.2)		(9.5)
Annual personal income <sup>‡</sup>	University degree or higher					166	(15.2)	42	(33.3)
	≤ \$20,000						(27.7)		(19.0)
	\$20,001 - \$40,000						(22.9)		(26.2)
	\$40,001 - \$60,000						(21.7)		(26.2)
	\$60,001 - \$80,000						(10.8)		(4.8)
	\$80,001 - \$100,000						(4.2)		(7.1)
	> \$100,000						(3.0)		(4.8)
Annual personal income <sup>‡</sup>	Not reported						(9.6)		(11.9)

<sup>#</sup> Participants could select more than one ethnicity

<sup>†</sup> Participants were placed in a single category using the prioritisation order of Māori, Pacific, Asian, European/Other

<sup>‡</sup> Data not collected in Phase I

<sup>Δ</sup> Categories not mutually exclusive



Almost all of the Phase 1 affected other participants (83 of 84) reported that at least one family/whānau member had an issue with gambling<sup>17</sup>, compared with slightly more than one-quarter of gamblers<sup>18</sup> (27%; 99 of 369). More than two-thirds of the affected others (70%) reported that the gambler was a current or ex-partner compared with gambler participants who reported 71% of the other gamblers with problems to be family/whānau members other than current/ex-partners, sons or daughters (Table 3). These other family/whānau members reported by gamblers were mainly parents and siblings.

**Table 3: Relationship with problem gambler among Phase I participants**

	<b>Gambler (n=99)</b>	<b>Affected other (n=83)</b>
<b>Relationship to problem gambler<sup>#</sup></b>	<b>%</b>	<b>%</b>
Current or ex-partner	36.4	69.9
Son or daughter	14.1	12.0
Other family/whānau member	70.7	24.1
Relationship not reported	1.0	-

<sup>#</sup> Participants could select multiple categories

Almost two-thirds (64%) of Phase 2 affected others reported that the problem gambler in their lives was their current spouse or partner, 10% reported that it was their son, and seven percent their mother. Ex-spouse/partner and father were both reported by five percent of participants. Other relatives were reported infrequently (less than 3%, n=1) (Table 4). Only four participants reported a second problem gambler in their lives. The relationships each were mother, mother-in-law, father-in-law and sister-in-law.

**Table 4: Relationship with problem gambler among Phase II affected other participants**

	<b>Affected other (n=42)</b>
<b>Relationship to problem gambler<sup>#</sup></b>	<b>%</b>
Current spouse/de facto partner	64.3
Ex-spouse/partner	4.8
Son	9.5
Daughter	2.4
Mother	7.1
Father	4.8
Brother	2.4
Sister	2.4
Aunt	2.4

<sup>#</sup> Participants could select multiple categories

<sup>17</sup> This was expected as affected other participants were recruited from clients seeking help because of someone else's gambling behaviours.

<sup>18</sup> Gamblers reported whether another family/whānau member, apart from themselves, had problems with gambling.

## 4.3 Phase I

This section details descriptive information regarding screening in Phase I of the study. In section 4.3.1 the main mode of problematic gambling by gamblers (reported by gamblers and affected others) is reported. Section 4.3.2 details the gambling risk level of gamblers and affected others. Family/whānau violence data overall (excluding financial violence<sup>19</sup>), by help-seeking status of participants (gambler or affected other) and by ethnicity are presented in section 4.3.3.

### 4.3.1 Main problematic gambling activity

Gamblers reported the main problematic gambling activity for themselves, affected others reported the gambling activity for the problem gambler they knew. The main problematic gambling activities were reported to be pub electronic gaming machines (EGMs) (37% gamblers, 35% affected others), casino table games (23%, 20%), casino EGMs (15%, 8%) and horse or dog race betting (7%, 16%). Other gambling activities were reported to be the main problem by less than five percent of gamblers and affected others (Table 5).

**Table 5: Main problematic gambling activity for Phase I participants**

Problematic gambling activity <sup>#</sup>	Reported by	
	Gambler (n=370)	Affected other (n=84)
	%	%
Pub electronic gaming machines	37.0	34.5
Casino table games	22.7	20.2
Casino electronic gaming machines	14.9	8.3
Track (horse or dog racing)	6.8	15.5
Sports betting	3.8	4.8
Club electronic gaming machines	2.7	4.8
Internet gambling	1.9	1.2
Lotto (including Big Wednesday and Powerball)	1.6	3.6
Casino electronic table games	1.6	3.6
Cards (not at casino)	1.1	1.2
Housie/bingo	0.3	1.2
Instant Kiwi or other scratch card	0.3	1.2
Keno	0.3	1.2
Other	0.3	1.2

<sup>#</sup> Participants could select multiple categories

### 4.3.2 Gambling risk level

Using the Problem Gambling Severity Index (PGSI), three-quarters (75%) of the gamblers were categorised as current problem gamblers, 12% were moderate-risk gamblers, 7% were low-risk gamblers and 6% were non-problem gamblers. Conversely, of the affected other participants, two-thirds (68%) were either non-gamblers or non-problem gamblers. However, a significant minority

<sup>19</sup> Financial violence questions were not asked in Phase I.

(16%) were also problem gamblers themselves with a further 10% being moderate-risk and 7% being low-risk gamblers (Table 6).

**Table 6: Gambling risk level of Phase I participants**

<b>Gambling risk level</b>	<b>Gambler (n=370) %</b>	<b>Affected other (n=84) %</b>
Non-gambler/non-problem gambler	6.4	67.5
Low-risk gambler	6.9	7.2
Moderate-risk gambler	11.7	9.6
Problem gambler	75.0	15.7

### 4.3.3 Family/whānau violence

Overall, half (50%) of the Phase I participants reported being a victim of violence from a current or ex-partner or other family/whānau member in the past 12 months. Slightly less than half (44%) of the participants reported perpetrating violence in the past 12 months. The most common type of violence for both victimisation and perpetration was verbal abuse. ‘Screamed or cursed at’ and ‘insulted or talked down to’ were reported by about two-fifths of victims and slightly more than one-third of perpetrators. ‘Threatened with harm’ was the next most common form of violence reported by 12% and 9% respectively for victims and perpetrators. Actual physical harm was reported by just less than 10% of participants. Four percent of participants reported being victims of sexual violence and none reported perpetrating it (Table 7). The severity and frequency of the violence were not recorded.

**Table 7: Violence victimisation and perpetration among Phase I participants**

<b>Type of violence<sup>#</sup></b>	<b>Victim %</b>	<b>Perpetrator %</b>
Physically hurt	8.8	7.1
Insulted or talked down to	40.3	34.0
Threatened with harm	12.3	9.1
Screamed or cursed at	41.4	37.1
Forced to have sexual activities	3.5	-
<i>Any violence (excl. financial violence)</i>	<i>50.2</i>	<i>44.2</i>

N=454

<sup>#</sup> Participants could select multiple categories

When violence was examined by the help-seeking status of participants (i.e. whether they were gamblers or affected others), it was apparent that affected others reported more family/whānau violence (both as victims and perpetrators) than gamblers. This was noted for all forms of violence (Table 8).

**Table 8: Violence victimisation and perpetration among Phase I participants by help-seeking status**

Type of violence <sup>#</sup>	Victim %		Perpetrator %	
	Gambler n=370	Affected other n=84	Gambler n=369	Affected other n=84
Physically hurt	8.4	10.7	6.0	11.9
Insulted or talked down to	36.5	57.1	30.6	48.8
Threatened with harm	11.4	16.7	7.6	15.5
Screamed or cursed at	39.5	50.0	35.0	46.4
Forced to have sexual activities	2.7	7.1	-	-
<i>Any violence (excl. financial violence)</i>	<i>46.8</i>	<i>65.5</i>	<i>41.2</i>	<i>57.1</i>

<sup>#</sup> Participants could select multiple categories

Three-quarters of the violence was reported to be to/from a current or ex-partner with a substantial proportion being ex-partners (19% victims, 15.5% perpetrators). One-fifth to one-third of the violence was reported to be to/from a family/whānau member other than a son or daughter who accounted for about 10% of the reported violence (Table 9). The majority of the ‘other family/whānau’ members were parents and siblings, and to a lesser extent, in-laws. As participants could select more than one person in relation to violence victimisation or perpetration, and as the sum of the percentages in the tables is greater than 100%, it is evident that multiple family/whānau members were involved in violent behaviour for some participants.

**Table 9: Relationship with victim or perpetrator of violence among Phase I participants**

Relationship with victim or perpetrator <sup>#</sup>	Victim % n=228	Perpetrator % n=200
Current or ex-partner	75.4	78.0
Son or daughter	9.2	10.0
Other family/whānau member	30.3	22.5
Relationship not reported	2.2	2.5

<sup>#</sup> Participants could select multiple categories

By help-seeking status, percentages of gamblers and affected others reporting violence to/from current or ex-partners were similar for victims and perpetrators. However, a higher proportion of gamblers reported violence to/from other family/whānau members than affected others; affected others appeared slightly more likely to report violence in relation to sons and daughters than gamblers (Table 10).

**Table 10: Relationship with victim or perpetrator of violence among Phase I participants by help-seeking status**

Relationship with victim or perpetrator <sup>#</sup>	Victim %		Perpetrator %	
	Gambler n=173	Affected other n=55	Gambler n=152	Affected other n=48
Current or ex-partner	73.4	81.8	75.7	85.4
Son or daughter	8.1	12.7	9.2	12.5
Other family/whānau member	34.7	16.4	26.3	10.4
Relationship not reported	2.9	-	2.6	2.1

<sup>#</sup> Participants could select multiple categories

## Ethnicity

When family/whānau violence was examined by ethnicity, some differences were noted (Table 11). About twice as many Māori reported being a victim of physical violence (16%) compared with the other groups (6% to 8%). Māori and Pacific people both appeared more likely to report perpetrating physical violence (10%) than Asian or European/Other participants (both 6%). Similarly, a higher proportion of Māori and Pacific people reported being victims or perpetrators of threatening to harm than the other ethnicities. More than twice as many Māori reported being victims of sexual violence (8%) than the other groups (2% to 3%). A lower proportion of Asian participants reported being victims or perpetrators of insulting, screaming or cursing behaviour compared with the other groups.

**Table 11: Violence victimisation and perpetration among Phase I participants by ethnicity**

Type of violence <sup>#</sup>	Victim %				Perpetrator %			
	Māori n=76	Pacific n=48	Asian n=119	Euro/Other n=209	Māori n=76	Pacific n=48	Asian n=119	Euro/Other n=209
Physically hurt	15.8	8.3	5.9	8.1	10.5	10.4	5.9	5.7
Insulted or talked down to	43.4	50.0	28.6	44.0	48.7	39.6	17.8	36.8
Threatened with harm	21.1	20.8	6.7	10.5	14.5	18.8	5.9	6.7
Screamed or cursed at	51.3	50.0	24.4	45.9	52.6	39.6	18.6	41.6
Forced to have sexual activities	7.9	2.1	2.5	2.9	-	-	-	-
Any violence (excl. financial violence)	55.3	58.3	31.9	57.4	60.5	45.8	25.4	48.8

<sup>#</sup> Participants could select multiple categories

When examined by help-seeking status of participants, overall, affected others of ethnic groups apart from Pacific people, appeared more likely to report being victims of family/whānau violence than gamblers. This finding was particularly noticeable for Asian participants for all forms of violence. For Pacific participants, the level of victimisation was similar for gamblers and affected others (Table 12). *However, sample sizes were small, particularly for affected other participants, so findings must be interpreted with caution.*

**Table 12: Violence victimisation among Phase I participants by ethnicity and help-seeking status**

Type of violence <sup>#</sup>	Gambler victim%				Affected other victim%			
	Māori n=66	Pacific n=36	Asian n=92	Euro/Other n=174	Māori n=10	Pacific n=12	Asian n=27	Euro/Other n=35
Physically hurt	18.2	8.3	3.3	7.5	-	8.3	14.8	11.4
Insulted or talked down to	42.4	50.0	18.5	41.4	50.0	50.0	63.0	57.1
Threatened with harm	19.7	19.4	3.3	10.9	30.0	25.0	18.5	8.6
Screamed or cursed at	48.5	47.2	18.5	46.0	70.0	58.3	44.4	45.7
Forced to have sexual activities	7.6	2.8	-	2.3	10.0	-	11.1	5.7
Any violence (excl. financial violence)	53.0	58.3	22.8	55.2	70.0	58.3	63.0	68.6

<sup>#</sup> Participants could select multiple categories

A different profile was noted for violence perpetration overall, with a higher proportion of Asian and European/Other affected others reporting perpetrating violence in comparison to gamblers, compared with Māori and Pacific participants who were similar amongst gamblers and affected others. As for victims, the difference was particularly noticeable for Asian participants (Table 13). *However, sample sizes were small, particularly for affected other participants, so findings must be interpreted with caution.*

**Table 13: Violence perpetration among Phase I participants by ethnicity and help-seeking status**

Type of violence <sup>#</sup>	Gambler perpetrator %				Affected other perpetrator %			
	Māori n=66	Pacific n=36	Asian n=91	Euro/Other n=174	Māori n=10	Pacific n=12	Asian n=27	Euro/Other n=35
Physically hurt	10.6	8.3	3.3	5.2	10.0	16.7	14.8	8.6
Insulted or talked down to	48.5	38.9	9.9	33.3	50.0	41.7	44.4	54.3
Threatened with harm	13.6	16.7	2.2	6.3	20.0	25.0	18.5	8.6
Screamed or cursed at	53.0	41.7	12.1	39.1	50.0	33.3	40.7	54.3
Forced to have sexual activities	-	-	-	-	-	-	-	-
Any violence (excl. financial violence)	60.6	47.2	16.5	46.0	60.0	41.7	55.6	62.9

<sup>#</sup> Participants could select multiple categories

Asian and European/Other participants showed a slightly different profile in their relationship with the victim or perpetrator, compared with the other ethnicities. A substantially lower proportion of Asian and European/Other participants reported that the violence was to/from a son or daughter, compared with Māori and Pacific participants. Asian participants also appeared less likely to report perpetrating violence to family members other than partners, sons and daughters. The violence reported to/from current or ex-partners was broadly similar across the ethnicities and was the majority of the reported cases (68% to 87%) (Table 14).

**Table 14: Relationship with victim or perpetrator of violence among Phase I participants by ethnicity**

Relationship to victim or perpetrator <sup>#</sup>	Victim %				Perpetrator %			
	Māori n=42	Pacific n=28	Asian n=38	Euro/Other n=120	Māori n=46	Pacific n=22	Asian n=30	Euro/Other n=102
Current or ex-partner	78.6	67.9	86.8	72.5	78.3	81.8	86.7	74.5
Son or daughter	14.3	14.3	2.6	8.3	15.2	18.2	3.3	7.8
Other family/whānau member	23.8	35.7	23.7	33.3	19.6	27.3	13.3	25.5
Relationship not reported	2.4	-	-	3.3	4.3	-	3.3	2.0

<sup>#</sup> Participants could select multiple categories

When relationships were examined by help-seeking status of participants (Table 15 and Table 16), it was noted that no Asian gamblers reported being a victim/perpetrator of violence from/to sons or daughters, and a lower proportion of European/Other gamblers reported violence from or to these people compared with European/Other affected others. However, affected other Māori were substantially more likely to report victimisation (but not perpetration) by sons and daughters. Pacific affected other participants were substantially more likely to report violence to and from other family/whānau members than other ethnicities and gambler participants. Almost all Asian affected others reported that the violence was from (94%) or to (93%) current or ex-partners; this was higher than that reported by other ethnicities and Asian gambler participants. Pacific affected other participants were less likely (57%) than other ethnicities (71% to 94%) to report being a victim of violence from a current or ex-partner; this finding was not noted for perpetration of violence by Pacific participants. *However, sample sizes were very small for all groups except European/Other gamblers, and particularly for affected other participants, so findings must be interpreted with caution.*

**Table 15: Relationship with victim of violence among Phase I participants by ethnicity and help-seeking status**

Relationship with victim or perpetrator <sup>#</sup>	Gambler victim %				Affected other victim %			
	Māori n=35	Pacific n=21	Asian n=21	Euro/Other n=96	Māori n=7	Pacific n=7	Asian n=17	Euro/Other n=24
Current or ex-partner	80.0	71.4	81.0	69.8	71.4	57.1	94.1	83.3
Son or daughter	11.4	14.3	-	7.3	28.6	14.3	5.9	12.5
Other family/whānau member	25.7	28.6	33.3	39.6	14.3	57.1	11.8	8.3
Relationship not reported	2.9	-	-	4.2	-	-	-	-

<sup>#</sup> Participants could select multiple categories

**Table 16: Relationship with perpetrator of violence among Phase I participants by ethnicity and help-seeking status**

Relationship with victim or perpetrator <sup>#</sup>	Gambler perpetrator %				Affected other perpetrator %			
	Māori n=40	Pacific n=17	Asian n=15	Euro/Other n=80	Māori n=6	Pacific n=5	Asian n=15	Euro/Other n=22
Current or ex-partner	77.5	82.4	80.0	72.5	83.3	80.0	93.3	81.8
Son or daughter	15.0	17.6	-	6.3	16.7	20.0	6.7	13.6
Other family/whānau member	20.0	23.5	20.0	31.3	16.7	40.0	6.7	4.5
Relationship not reported	5.0	-	-	2.5	-	-	6.7	-

<sup>#</sup> Participants could select multiple categories

## 4.4 Phase II - Gambling behaviours and impacts, coping behaviours and co-existing issues

This section includes descriptive data from the Phase 1 participants who agreed to continue into Phase II and to undergo an extensive survey on their gambling behaviours, coping behaviours and family/whānau violence. *Note that due to the small sample of affected others participating in this phase (n=42), that results for this group of participants should be considered indicative and not absolute.*

Section 4.4.1 details pre-counselling gambling behaviour of the gambler participants, help-seeking behaviours, and motivations for gambling.

Section 4.4.2 details effects of the gamblers' gambling behaviours on family/whānau members from the perspective of gambler and affected other participants. There is also a subsection on the effects of the gambling on children aged less than 18 years.

Section 4.4.3 details strategies family/whānau members used to cope with their family/whānau member's gambling, and perceived interpersonal support.

Section 4.4.4 details co-existing issues of risky alcohol consumption, drug and tobacco use, general psychological distress, aggression (anger and hostility), emotion regulation and general distress.

### 4.4.1 Gambling behaviour

#### Pre-counselling gambling behaviour

The median number of years of problematic gambling behaviour reported by gamblers was six years (range zero to 40 years) with the median number of gambling sessions per week reported to be three (range zero to 14). The median weekly expenditure on gambling was \$300, with the mean weekly expenditure of \$813 (range zero to \$30,000) skewed by two participants who reported estimated expenditure in the tens of thousands of dollars. The median time spent gambling per week was eight hours (range zero to 50 hours) (Table 17).

**Table 17: Pre-counselling gambling behaviour of Phase II gamblers**

Gambling behaviour	n	Min.	Max.	Mean	SD	Median
Length of problem gambling (years)	163	0	40	8.2	7.6	6.0
Average gambling sessions per week	157	0	14	3.6	2.2	3.0
Average money spent per week (\$)	155	0	30,000	813.2	2592.7	300.0
Average time spent per week (hours)	154	0	50	11.4	10.7	8.0

Overall, affected others perceived the behaviour of the main gambler in their lives similarly to that reported overall by gambler participants. Using a 10-point scale to estimate problem severity for the gambler in their lives (where 1 = not much of an issue and 10 = serious problem), affected others reported a median value of 9 (mean 8.6, SD 1.6).

#### Help-seeking behaviour

Slightly more than a third of gamblers were either currently self-excluded from gambling venues (36%) or had been in the past 12 months (8.5%). Other help-seeking behaviour was comparatively low although one-fifth of gamblers (22%) had received counselling or medication for gambling in the past 12 months, or were currently receiving counselling or medication from somewhere other than from



where they had been recruited for the study. A few gamblers had regularly attended Gamblers Anonymous (GA) meetings (9%) in the past 12 months and a smaller proportion (5%) reported that they were currently attending GA meetings (Table 18).

**Table 18: Help-seeking behaviour of Phase II gamblers in the 12 months prior to counselling**

	N	No %	Yes, but not currently %	Yes, currently %
<b>Help-seeking behaviour</b>				
Received counselling or medication for gambling	166	77.7	12.7	9.6
Regularly attended Gamblers Anonymous meetings	165	86.0	9.1	4.9
Self-excluded from local EGM venues, TAB <sup>†</sup> venues or casinos	165	55.2	8.5	36.4

<sup>†</sup> Totalisator Agency Board

A small proportion of gamblers indicated that they had current or impending court or legal matters related to gambling (7%).

### Gambling motivation

Gambling motivation was measured using the Gambling Motives Questionnaire. The three subscales are enhancement motives (internal positive reinforcement, i.e. gambling to increase positive emotions), coping motives (internal negative reinforcement, i.e. gambling to reduce or avoid negative emotions), and social motives (external positive reinforcement motives, i.e. gambling to increase social affiliation).

Median values of 13, 11 and 7 were noted respectively for the three subscales (enhancement motives, coping motives and social motives). The maximum score for the first two subscales was 20 and for the social motives subscale was 18. This indicates that overall, the gamblers participating in this study were scoring highly for enhancement and coping motives but less for social motives, that is to say they were gambling less for social reasons and more to increase positive emotions and/or to reduce or avoid negative emotions (Table 19).

**Table 19: Gambling Motives Questionnaire scores of Phase II gamblers**

Subscale	n	Min.	Max.	Mean	SD	Median
Enhancement motives	160	5	20	13.0	4.1	13.0
Coping motives	161	5	20	11.5	3.8	11.0
Social motives	159	5	18	7.8	2.9	7.0

#### 4.4.2 Impact of gambling

##### Victorian Problem Gambling Family Impact Scale

The median score reported by gamblers regarding the impact of their gambling on family/whānau members over the past three months was 31.5 (range 14 to 56, which is the full possible range). For affected others, the median score for the impact of gamblers' behaviour on them was 46 (range 14 to 56) (Table 20). A higher score indicates greater negative impact. These findings suggest that gamblers may underestimate the impact of their behaviour on family/whānau members.

**Table 20: Victorian Problem Gambling Family Impact scores of Phase II participants**

Participant type	n	Min.	Max.	Mean	SD	Median
Gambler	154	14	56	32.1	13.8	31.5
Affected other	37	14	56	42.9	11.6	46.0

### Effect of gambling on family/whānau members

Gamblers and affected others were asked to identify the effects of the gambling on family/whānau members. This question was open-ended<sup>20</sup> and participants could identify multiple effects. Gamblers reported that their own gambling affected their family/whānau members; affected others identified effects of gambling on themselves and other family/whānau members. The types of effects that were discussed are summarised in Table 21.

Gamblers and affected others identified similar effects. However, a higher proportion of affected others reported financial deprivation, relationship/family discordance, relationship/family break-up, and health effects than gamblers. Notably, nearly one-quarter of gamblers reported that their gambling had no effect on family/whānau members, whilst no affected others reported a lack of effects. This again suggests that gamblers may be underestimating the effect of their gambling behaviour on family/whānau members, though the small sample of affected others may have skewed the findings. It is of note that a very small percentage of gamblers and affected others (1% and 2% respectively) reported positive effects of gambling behaviours.

### Financial deprivation

Participants most commonly mentioned *financial deprivation* (28% gamblers, 64% affected others) as a major effect of gambling. Gambling expenditure often meant that there was no money left to pay for basic household bills such as electricity and children's school fees. Several participants noted instances of family/whānau members having to go without food, for example one gambler identified "Financial devastation - our bills are not paid in time, there is not enough food", and an affected other noted "He wastes the money on gambling and we can't buy groceries". Two gambler participants reported that borrowing money from family/whānau members had caused those family/whānau members to go into debt that they were having trouble repaying. Two affected others mentioned theft by the gambler to pay for gambling, for example "I've had to pay for things that she's stolen and pawned off. Our rent weekly is \$270 per week, I don't have much to live on, she's bled me dry". Another affected other said that the financial impact of gambling had spread outwards in their family/whānau network, "I feel obligated to provide for them [the gambler and their family] when they come to visit. They never contribute to anything, so it ends up becoming a financial burden on other family members". Financial issues could also mean a lower standard of living compared to life before the gambling problem started, for example one gambler reported that "Gambling affected my two younger children because we used to travel a lot, but not now, because money is tight. My kids got upset when they found out my husband is being cautious about money". One affected other commented that a much-needed family holiday had been postponed because of a lack of funds due to gambling.

### Emotional upset

Gamblers and affected others both reported that family/whānau members experienced *emotional upset* (26% gamblers, 21% affected others) which mostly included stress and worry (often connected to

<sup>20</sup> Some of the quotations detailed were written verbatim by the researchers conducting the interviews and some relate to brief notes taken by the researchers.

financial issues) as well as disappointment and sadness. Five gambler participants indicated that their family/whānau members felt anger and frustration with them because of their gambling. Five affected others reported feeling angry with the gambler, for example, “We were due to marry in three months and I’ve just cancelled all the arrangements. I’m very angry”. Two gambler participants reported that their family/whānau members experienced acute emotional issues that they described as “trauma” and being “devastated”. Two other gambler participants reported their family/whānau members had suffered depression because of their gambling. Two affected others said that they personally felt emotionally drained to the point of physical exhaustion (mentioning chronic fatigue and illness caused by their emotional upset).

### Negative effects on relationship quality

Gamblers and affected others identified several negative effects on relationship quality (e.g. relationship discordance, loss of trust, gambler absence from family/whānau life, relationship breakup). *Relationship/family discordance* was the third most commonly mentioned effect by gamblers (23%), and the second most common by affected others (38%). Gamblers reported low quality communication, tension and strain in relationships with their family/whānau members. Three gambler participants mentioned that borrowing money from family/whānau members had complicated and/or reduced the quality of their relationships. Eight gambler participants mentioned that their gambling contributed to arguments or aggression in the home, for example, “My partner was angry, we lost our trust, we were fighting continuously” and “It has caused arguments, made me feel ill and lose control of myself”, “When confronted by my family I become defensive and aggressive”. Two gambler participants specifically mentioned violence, for example, “I can have a violent mood”. Five affected others specifically identified the gambler’s aggression at home, for example, “When he loses money he comes home and shouts and yells at the kids”. Two gambler participants described how their gambling behaviour had alienated extended family/whānau members, causing them to feel unwelcome in their home. One gambler participant mentioned that their gambling had forced their partner into a monitoring/parental role, which they regarded as reducing the quality of their relationship.

It is not surprising that nine gambler participants and eight affected others mentioned that their gambling resulted in a *relationship and/or family break-up* given the kind of relationship discordance just described. Four gambler participants and one affected other mentioned that they had divorced because of gambling. Two gambler and six affected other participants cited relationship break-up. Family break-ups were specifically mentioned by three gamblers and three affected others; the effect on children was noted to be particularly difficult by affected others, for example, “Gambling has ripped the family in two. My little boy has gone from having his dad at home all the time to just seeing him once or twice a week. I had no choice but to kick him out and we now have very limited contact” and “It is really hard because my brother and I hardly see our father any more”.

A *loss of trust in relationships* with family/whānau members (reported by 23% of gamblers and 24% of affected others) and gamblers being *absent from family life* (10% of gamblers, 14% of affected others) were often mentioned as key factors related to gambling behaviour which caused relationship strain and problems. Mostly, the loss of trust was connected to misappropriation of family/whānau money for gambling and the gambler lying about how and where they were spending their time and money. Two gambler participants connected a loss of trust to an increase in arguments in the home and becoming defensive and aggressive with their partner, respectively. Gamblers and affected others mentioned that the negative effects of gambling took the gambler away from family/whānau activities, and caused them to be neglectful or unreliable in their families. For example, gamblers mentioned “Not spending enough time together as a family”, “I distance myself from my family - it’s hard on the kids”, “Because I am lying and not turning up, I am unreliable for them”. Affected others mentioned: “He’s not available to his family as much as he could be”, “Our family life is out of order. She has no time to stay with the children”.

## Health effects

*Health effects* identified by two gamblers included a lack of quality nutrition and chronic stress (both reported to be caused by financial deprivation due to gambling). Four affected others reported a perceived link between gambling-related stress and a diagnosis of cancer, and a range of physical health complaints (e.g. headaches, nausea).

## Positive effects

*Positive effects* mentioned by two gamblers included the enjoyment of gambling leisure time and the winnings that could be brought home. One affected other noted that her sister's gambling problem had brought them closer together as she had moved countries to help care for her sister's children.

## No effect

Over one-fifth (23%, n=39) of gamblers, when asked about the effects of their gambling on their family/whānau members, stated that their gambling had *no effect* at all. Where participants gave an explanation, the most common reason was that the family/whānau was not aware that the gambler had a gambling problem (n=15), for example, "They don't know and have no suspicions", "I have a family of four and my husband doesn't know anything about it". Other participants commented that their family/whānau members accepted or supported their gambling (n=4) or they had no family living in New Zealand (n=4). No affected others reported that gambling had no effect.

**Table 21: Effect of gambling on family/whānau members of Phase II participants**

Effect gambling has had on family/whānau members <sup>#</sup>	Gambler		Affected Other	
	n	(%)	n	(%)
Financial deprivation	47	(28)	27	(64)
Emotional upset	43	(26)	9	(21)
Relationship/family discordance	39	(23)	16	(38)
Loss of trust in relationships	38	(23)	10	(24)
Gambler is absent from family life	16	(10)	6	(14)
Relationship/family break-up	9	(5)	8	(19)
Health effects	2	(1)	4	(10)
Positive effects	2	(1)	1	(2)
No effect	39	(23)	0	-

<sup>#</sup> Participants could identify multiple effects

## **Effect of gambling on home life**

Participants were asked to identify the effects they thought their gambling had on their home life<sup>21</sup>. Participants interpreted this question in a similar way to the question about effects of gambling on their family/whānau members. Some gamblers gave more information about emotional issues they had themselves experienced because of their gambling (13%), sometimes commenting that that these could be "brought home" with them, spilling into their home lives. Again, very few affected others reported

<sup>21</sup> Some of the quotations detailed were written verbatim by the researchers conducting the interviews and some relate to brief notes taken by the researchers.

that gambling had no effect on their home life (5%), compared to more than one-fifth of gamblers (22%). Notably, four gambler participants commented that their gambling provided an escape from their difficult home lives. The types of effects on home life that participants reported are summarised in Table 22.

### Financial deprivation

Similar to the effects on family/whānau members reported by participants, *financial deprivation* was commonly reported by gamblers (27%) and affected others (33%) to be a consequence of gambling on home life. Most of the gamblers mentioned having to go without money for rent or food. Affected others also mentioned an increase in household debt. A lack of money for household expenses contributed to relationship strain for five gambler participants and five affected others. Two gamblers mentioned a loss of broader independence caused by limited funds, “Financially, if I had saved money instead of gambling I would be fine. I’d be able to live off savings without worries”, and “My gambling impacted my home life because instead of me being able to get a place of my own quicker I had to live with my sister. It affected my independence”. Two affected others referred to longer-term financial consequences for their families, “I suppose we would have paid off more on the mortgage. It has compromised our financial standing”, “We are renting, we don’t have a house. I am trying to save money, but he spends all his money. I don’t know if we will ever have a house of our own”.

### Negative effects on relationship quality

As with direct effects on family/whānau members, gamblers and affected others reported that gambling had negatively affected the quality of family/whānau relationships through a *loss of trust* (10% gamblers, 26% affected others) and an increase in *relationship/family discordance* (19% gamblers, 45% affected others) in the form of tension, stress and strain. More frequent arguments and anger at home was explicitly mentioned by five gamblers and three affected others. Four gambler participants mentioned they had experienced a *relationship/family break-up*, for example, “I lost relationships over gambling, it created debt and in relationships I become argumentative if I lose. I take my frustrations out on others”. Participants reported the effect of the gambler’s *absence from family life* (13% gamblers, 21% affected others) emphasising the way that gambling had disrupted the normal rhythms/systems that take place in their homes. For example, two gamblers described the effect on home life as “unsettling” and one other said that gambling was “destructive to the family routine and normal life”. Other gambler participants said that gambling had prevented them from carrying out their normal roles within their families, for example, “No time for family chores, especially washing, cooking, tidying and others. I am unable to fulfil my duties as a mother, I ignore everything”, and “I have ignored my man’s role. The time for being at home has gone for gambling. I spend much time on drinking and gambling”. One gambler participant commented that they had spent time in prison because of their gambling problem and identified this time away from home as causing a lot of anxiety and harm. Affected others also emphasised the effect of a gambler’s withdrawal from home life, for example, “She’s not here and when she is she may as well be a pot plant or something because she’s not thinking of anyone else. She doesn’t join in. She doesn’t contribute unless she’s asked. Even then it’s still a struggle”.

### Negative emotional effects on gamblers themselves

Several gambler participants (13%) reported *negative emotional effects* on themselves personally (e.g. feeling depressed, anxious, sad, guilty and having low self-esteem). For example, “I feel like it’s all got to me. I’m angry at myself, I should have been on top of it. It’s weighed me down and I feel bad about myself”, “I feel uneasy and unhealthy, sadness and despair”. Some of those gamblers

commented on the way that the emotional issues could affect their home lives and lifestyle, for example, “I don’t win often, and when I return [home] it affects my mood and I don’t want to be around anyone. I get massive mood swings”, “Gambling made me depressed and very disinclined to do anything, I’d come home late and I’m 53 years old. I’d be exhausted”.

### Escaping a bad situation at home

Four gamblers mentioned that their gambling was directly connected to their home life and used as a form of *escape*. Two female gamblers reported using gambling to escape unhappy relationships, “I was in a horrible relationship; I used gambling as a way to escape from my problems”, “I went through a separation and used gambling to escape. I have two kids, I wasn't doing what I should have”. Two male gamblers mentioned feeling trapped and “stuck” at home or lonely and isolated respectively, and that gambling offered another place for them to be at night. No affected others mentioned home life as a precipitating factor for gambling problems.

### Positive effects

*Positive effects* on home life mentioned by gamblers included the benefit of occasional wins, for example, “More money to buy things. I can gain more money gambling”. No affected others mentioned positive effects on their home lives.

### No effect

Thirty-six gamblers (22%) and two affected others (5%) commented that their gambling (or their family/whānau member’s gambling) had no effect on their home life. When gamblers gave a reason, five indicated that their family/whānau members did not know about their gambling problem. Some gamblers hinted at a lack of awareness of consequences. For example, “It doesn’t impact at home, I don’t gamble for extended periods of time and I spend quality time with my child”, “My partner would cover my bills whenever I would gamble so it didn't have a huge impact”, “I never had any problems. Always up to date with my bills that’s why I can afford to go gambling”. Two affected others said that their family member’s gambling did not affect their home life because they did not live in the same household as the gambler.

**Table 22: Effect of gambling on home life of Phase II participants**

<b>Effect of gambling on home life<sup>#</sup></b>	<b>Gambler</b>		<b>Affected Other</b>	
	<b>n</b>	<b>(%)</b>	<b>n</b>	<b>(%)</b>
Financial deprivation	45	(27)	14	(33)
Relationship/family discordance	32	(19)	19	(45)
Gambler is absent from family life	22	(13)	9	(21)
Negative emotional impacts on gambler themselves	21	(13)	0	-
Loss of trust in relationships	17	(10)	11	(26)
Relationship/family break-up	4	(2)	0	-
Escaping a bad situation at home	4	(2)	0	-
Positive effects	2	(1)	0	-
No effect	36	(22)	2	(5)

<sup>#</sup> Participants could identify multiple effects

## Effect of gambling on children aged less than 18 years

Sixty-two gamblers (37%) reported that they had children aged less than 18 years who were living at home. Those gamblers most commonly indicated that they had one (n=26, 42%) or two (n=20, 32%) children living with them. Some indicated that they had three (n=9), four (n=4), five (n=2) or six (n=1) children at home. All gamblers with children living at home were asked an open-ended question about the effects they thought their gambling had on these children. The effects gamblers described are summarised in Table 23.

Half of the gamblers with dependent children reported that their gambling had no effect on their children. When participants explained their response, they commented that their children were unaware of their gambling problem. Some participants reported that they had taken steps to prevent their gambling from affecting their children, for example: "I've done everything I can for them", "My kids are priority" and "I'm still providing for them. They have the basic stuff". Four participants reported that their children were too young to be affected.

Fifteen gamblers reported that their children had suffered social deprivation because of their gambling; they generally indicated a lack of money or time to dedicate to social or enrichment activities in their children's lives, for example: "The money I spent could have gone on something else, like a family holiday", "He's realised that there's not much money around. It limits his social life, he doesn't feel like he can ask to go to things", "I have not been meeting my kids' needs educationally".

Children's emotional pain and upset was reported by eleven gamblers who said that their children felt anger, stress, anxiety, sadness and disappointment because of the gambling. One gambler commented that their child had become fearful after witnessing several family arguments over gambling; another gambler reported that their 13 year old child had become so anxious they refused to go to school. Emotional neglect was mentioned as an effect on their children by eleven gamblers who noted, for example, that "Mum hasn't been there", "There's been a lack of support for my child at home", "I'm too tired from staying out late gambling to be there for him", and "a lack of quality time together as a family".

Nine gamblers reported that their children had suffered physical or physiological neglect, for example, that they were left unattended when they could not care for themselves and did not have enough food to eat. Six gamblers mentioned the negative consequence they felt their gambling had on their relationship with their child/ren, for example, "Not having good communication with them anymore" and "I suppose the trust factor could be a thing".

**Table 23: Effect of gambling on dependent children aged less than 18 years of Phase II participants**

Effect <sup>#</sup>	Gambler	
	n	(%)
No effect	31	(50)
Social deprivation	15	(24)
Emotional pain	11	(18)
Emotional neglect	11	(18)
Physical/physiological neglect	9	(15)
Relationship strain	6	(10)
<i>Total gamblers with children at home</i>	<i>62</i>	<i>(100)</i>

<sup>#</sup> Participants could identify multiple effects

## Strengths and Difficulties Questionnaire

Gambler participants were asked to respond to the Strengths and Difficulties Questionnaire (SDQ) in relation to their eldest child's<sup>22</sup> behaviour over the past six months. Overall, scores for all subscales and the total were within accepted normal ranges<sup>23</sup> suggesting that the gamblers' behaviour, overall, was not substantially affecting the behaviour of their eldest child. However, this finding should be viewed with caution as the maximum score for each subscale and total reported by some participants indicated that their eldest child was within the abnormal behaviour range.

**Table 24: Strengths and Difficulties Questionnaire scores reported by Phase II gamblers**

Subscale	Normal score range	n	Min.	Max.	Mean	SD	Median
Conduct problems	0-2	56	0	10	1.7	2.0	1.0
Emotional symptoms	0-3	54	0	10	2.3	2.3	2.0
Hyperactivity	0-5	56	0	10	4.1	2.4	4.0
Peer problems	0-2	52	0	7	1.8	1.8	1.0
Prosocial behaviour	6-10	54	0	10	7.5	2.9	8.5
<i>Total SDQ</i> ( <i>excl prosocial</i> )	0-13	47	0	36	10.0	6.9	9.0

### **4.4.3 Coping behaviours**

#### **Strategies family/whānau members used to cope with their family/whānau member's gambling**

All participants were presented with a list of strategies (Coping Questionnaire) some people may use to cope with a family/whānau member's gambling. These coping strategies can be broadly categorised as being engaged, tolerant or withdrawn. In relation to gambling, *engaged coping* strategies are ways of trying to change a gambler's behaviour by actively confronting it in a manner that is more or less emotional, controlling, assertive or supportive. *Tolerant coping* involves actions that indicate an acceptance of, or resignation to, the gambling behaviour. Tolerant coping can also involve enabling/supporting the gambling behaviour or self-sacrificing efforts to mitigate the negative effects of gambling. *Withdrawal* involves reducing contact/interactions with the gambler and can involve increasing one's independence from them financially and/or emotionally. These categories of coping strategies are not mutually exclusive, rather family/whānau members may draw on a combination or succession of engagement, tolerance and withdrawal. Gamblers and affected others were asked to identify how often their family/whānau members (if a gambler participant) or they themselves (if they were affected others) had used the various coping strategies in the past three months. The degree to which each strategy was used by family/whānau members of gamblers or by affected others is presented in Table 25, Table 27 and Table 26. Strategies have been grouped according to whether they represented engagement, tolerance or withdrawal.

Overall, participants reported that family/whānau members engaged in a wide range of coping strategies. The most common strategies (used at least once in the last three months by more than 50% of participants when gambler and affected other reports were combined) were strategies of engagement. These included emotional engagement - "Got moody or emotional with the gambler" (60%), assertive engagement - "Made it quite clear to the gambler that their gambling was causing them upset and that it had to change" (58%), "Made clear their expectations of what the gambler should do to contribute to the family/whānau" (53%), or supportive engagement - "Sat down with the gambler to help sort out the

<sup>22</sup> Eldest child aged 18 years or younger, where applicable.

<sup>23</sup> As reported by Goodman (1997).



financial situation” (55%). Participants also commonly reported family/whānau members using one particular tolerant coping strategy: “Tried to keep things looking normal, pretended all was well when it wasn’t or hid the extent of the gambler’s gambling” (51%), and one withdrawal strategy: “Put the interests of other members of the family/whānau before the gambler’s” (51%).

**Table 25: Engaged coping strategies used in the last three months by Phase II affected others and by gamblers’ family/whānau**

Engaged coping strategies	By affected other		By gamblers’ family/whānau		Overall
	No	Yes	No	Yes	Yes
	N (%)	N (%)	N (%)	N (%)	N (%)
Got moody or emotional with the gambler	9 (21.4)	33 (78.6)	72 (44.4)	90 (55.6)	123 (60.3)
Made it quite clear to the gambler that their gambling was causing them upset and that it had to change	9 (21.4)	33 (78.6)	77 (47.2)	86 (52.8)	119 (58.0)
Sat down with the gambler to help sort out the financial situation	14 (33.3)	28 (66.7)	78 (47.9)	85 (52.1)	113 (55.1)
Made clear their expectations of what the gambler should do to contribute to the family/whānau	10 (23.8)	32 (76.2)	86 (52.8)	77 (47.3)	109 (53.2)
Sat down together and talked frankly about what could be done about the gambler’s gambling	15 (35.7)	27 (64.3)	91 (55.8)	72 (44.2)	99 (48.3)
Stuck up for the gambler or stood by them when others were criticising them	20 (47.6)	22 (52.4)	87 (54.4)	73 (45.6)	95 (47.0)
Made it clear to the gambler that they won’t accept their reasons for gambling or cover up for them	11 (26.2)	31 (73.8)	98 (60.1)	65 (39.9)	96 (46.8)
Started an argument with the gambler about gambling	11 (26.2)	31 (73.9)	99 (60.7)	64 (39.2)	95 (46.3)
Watched the gambler’s every move, checked up on or kept a close eye on the gambler	17 (40.5)	25 (59.5)	95 (59.8)	64 (40.3)	89 (44.3)
Accused the gambler of not loving them or of letting them down	18 (42.9)	24 (57.1)	102 (62.6)	61 (37.4)	85 (41.5)
Pleaded with the gambler about their gambling	13 (31.0)	29 (69.1)	108 (66.3)	55 (33.7)	84 (41.0)
Searched for evidence of the gambler’s gambling	13 (31.7)	28 (68.3)	104 (68.0)	49 (32.0)	77 (39.7)
Tried to limit the gambler’s gambling by making some rule about it, for example forbidding gambling	22 (52.4)	20 (47.7)	111 (68.5)	51 (31.4)	71 (34.8)
Encouraged the gambler to take an oath/promise not to gamble	23 (54.8)	19 (45.2)	111 (68.1)	52 (32.0)	71 (34.6)

**Table 26: Withdrawal coping strategies in the last three months of Phase II affected others and by gamblers’ family/whānau**

Withdrawal coping strategies	By affected other		By gamblers’ family/whānau		Overall
	No	Yes	No	Yes	Yes
	N (%)	N (%)	N (%)	N (%)	N (%)
Put the interests of other members of the family/whānau before the gambler’s	13 (31.0)	29 (69.1)	88 (54.3)	74 (45.7)	103 (50.5)
Got on with their own things or acted as if the gambler wasn’t there	16 (38.1)	26 (62.0)	96 (59.6)	65 (40.4)	91 (44.8)
Refused to lend the gambler money or to help out financially in other ways	17 (40.5)	25 (59.5)	102 (62.6)	61 (37.5)	86 (42.0)
Sometimes put themselves first by looking after themselves or giving themselves treats	18 (42.9)	24 (57.1)	99 (62.7)	59 (37.3)	83 (41.5)
Pursued their own interests or looked for new interests or occupations for themselves, or got more involved in a political, church, sports or other organisation	17 (40.5)	25 (59.5)	111 (68.9)	50 (31.0)	75 (36.9)
Avoided the gambler as much as possible because of their gambling	24 (57.1)	18 (42.9)	105 (65.2)	56 (34.8)	74 (36.5)

**Table 27: Tolerant coping strategies used in the last three months by Phase II affected others and by gamblers' family/whānau**

Tolerant coping strategies	By affected other		By gamblers' family/whānau		Overall
	No	Yes	No	Yes	Yes
	N (%)	N (%)	N (%)	N (%)	N (%)
Tried to keep things looking normal, pretended all was well when it wasn't or hid the extent of the gambler's gambling	14 (33.3)	28 (66.7)	85 (53.5)	74 (46.6)	102 (50.7)
When the gambler was preoccupied by gambling, left them alone to look after themselves or kept out of their way	20 (48.8)	21 (51.3)	88 (54.3)	74 (45.7)	95 (46.8)
Put themselves out for the gambler, for example by clearing up problems after the gambler has been gambling	17 (40.5)	25 (59.6)	97 (59.2)	67 (40.8)	92 (44.7)
Felt too hopeless to do anything	15 (35.7)	27 (64.4)	100 (63.7)	57 (36.3)	84 (42.2)
Given the gambler money even when they thought it would be spent on gambling	24 (58.5)	17 (41.5)	104 (64.6)	57 (35.5)	74 (36.6)
Got in a state where they didn't or couldn't make any decision	17 (40.5)	25 (59.5)	111 (69.8)	48 (30.2)	73 (36.3)
Accepted the situation as a part of life that couldn't be changed	19 (45.2)	23 (54.7)	112 (70.4)	47 (29.6)	70 (34.8)
Made threats that they didn't really mean to carry out	26 (61.9)	16 (38.2)	116 (71.2)	47 (28.8)	63 (30.7)
Felt too frightened to do anything	26 (63.4)	15 (36.6)	119 (73.9)	42 (26.1)	57 (28.2)
When things happened as a result of gambling, made excuses for the gambler, covered up for them or took the blame themselves	24 (58.5)	17 (41.5)	129 (79.1)	34 (20.9)	51 (25.0)

*Other strategies family/whānau members used to cope with their family/whānau member's gambling*

Gamblers and affected others were asked whether there were any other strategies family/whānau members (of gamblers) or they (affected others) had used to cope with the gambling problem that were not captured in the previous list<sup>24</sup>. Three-quarters (75%, n=125) of gamblers and two-fifths (38%, n=16) of affected others did not identify any additional coping strategies.

Of participants who reported an additional strategy, 11 gamblers mentioned that their family/whānau members sought *control over finances*. They reported that family/whānau members requested joint bank accounts, asked for transparency around how money is being spent, made money less accessible to the gambler or gave the gambler a set amount of cash to spend per week, for example, "She has the cards and financial responsibility now. I don't have cash on me", "I am only allowed to use one card and that is for our joint account so my wife can see what I'm spending". Only one affected other mentioned a financial control strategy.

Ten gamblers described how family/whānau members *support and encourage* them to identify and achieve their goals, for example, "They helped me make a family budget, they encourage me and help me find direction", "My husband encourages me to give up gambling with positive reinforcement and affirmations", "She rings me often, and encourages me to get engaged with other things". No affected others mentioned supporting and encouraging the gambler as an additional strategy.

<sup>24</sup> Some of the quotations detailed were written verbatim by the researchers conducting the interviews and some relate to brief notes taken by the researchers.

Ten affected others reported *seeking professional support/counselling* for themselves; two gamblers also mentioned that their family/whānau members had used this strategy. Other individual coping strategies were each mentioned by less than 10 gamblers or affected others.

## Interpersonal support

The Interpersonal Support Evaluation List (ISEL-12) was used to measure the level of perceived social support for Phase II participants, via three subscales (appraisal, belonging and tangible social support). Possible scores for each question ranged from 0 (definitely false) to 3 (definitely true) (overall maximum score per subscale = 12) with higher scores indicating higher levels of perceived social support. On average, gamblers and affected others reported similarly high levels of interpersonal support for the three subscales (Table 28).

**Table 28: Interpersonal support of Phase II participants**

ISEL-12 subscale	Gambler	Affected other
Appraisal		
n	159	42
Range (min - max)	0 - 12	0 - 12
Mean (SD)	8.8 (3.3)	8.8 (3.1)
Median	9.0	9.0
Belonging		
n	158	42
Range (min - max)	0 - 12	2 - 12
Mean (SD)	8.7 (3.0)	8.1 (3.2)
Median	9.0	8.0
Tangible		
n	161	40
Range (min - max)	0 - 12	0 - 12
Mean (SD)	9.4 (3.0)	8.4 (2.8)
Median	10.0	9.0

### 4.4.4 Co-existing issues

Gambler and affected other participants were assessed for risky alcohol consumption, drug use, tobacco smoking and general psychological distress. Additionally, aggression, emotion regulation, and general distress (i.e. anxiety, depression, somatic symptoms and inadequacy symptoms) were measured.

## Risky alcohol consumption

About one-third of gamblers (32%) who reported having a drink containing alcohol in the past year were classified as risky drinkers, compared to about one-quarter (24%) of affected others (Table 29). The median AUDIT score for gamblers was 4.0 (range 0 to 31) compared to a median score of 2.5 for affected others (range 0 to 22).

**Table 29: Alcohol use of Phase II participants**

AUDIT drinking status	Gambler % (n=158)	Affected other % (n=42)
Non-risky drinker	67.2%	76.2%
Risky drinker	32.3%	23.8%

## Drug use

The majority of gamblers and affected others did not use drugs or did so without problems (81% and 93% respectively). About one-tenth of participants reported a low level of problems (11% gambler, 7% affected other). No affected other participants reported moderate or substantial problems compared to 4% of gambler participants in both categories (Table 30).

**Table 30: Drug use of Phase II participants**

<b>DAST status</b>	<b>Gambler % (n=161)</b>	<b>Affected other % (n=42)</b>
None/No problems	81.4%	92.9%
Low level of problems	11.2%	7.1%
Moderate level of problems	3.7%	-
Substantial problems	3.7%	-

## Tobacco use

Twice as many gambler participants were daily smokers (43%) in comparison to affected other participants (21%). A slightly higher proportion of gamblers were ex-smokers (13%) compared with affected others (5%) (Table 31).

**Table 31: Tobacco use of Phase II participants**

<b>Smoking status</b>	<b>Gambler % (n=162)</b>	<b>Affected other % (n=42)</b>
Never smoked more than 100 cigarettes	40.1%	73.8%
Does not smoke now	13.0%	4.8%
Current smoker - at least once a day	42.6%	21.4%
Current smoker - at least once a week	1.2%	-
Current smoker - less often than once a month	3.1%	-

## General psychological distress

The proportions of participants reporting low, moderate or high levels of general psychological distress were similar for gamblers and affected others. Just less than half reported moderate levels of distress (49% gamblers, 45% affected others) and approximately one-quarter reported low or high levels of distress (Table 32). The median score for gamblers was 21 (range 10 - 50) compared to a median score of 23 for affected others (range 10 - 43).

**Table 32: Psychological distress of Phase II participants**

<b>Kessler-10 status</b>	<b>Gambler % (n=165)</b>	<b>Affected other % (n=42)</b>
Low level of distress	29.7%	26.2%
Moderate level of distress	49.1%	45.2%
High level of distress	21.2%	28.6%

## Buss-Perry Aggression Questionnaire

Participants were administered a short form of the Buss-Perry Aggression Questionnaire subscales measuring anger (e.g. I flare up quickly but get over it quickly) and hostility (e.g. I wonder why

sometimes I feel so bitter about things). Possible scores ranged from 3 to 15 with scores greater than 9 indicating higher levels of anger or hostility. On average, gamblers and affected others reported similarly lower levels of anger and hostility (Table 33).

**Table 33: Buss-Perry Aggression Questionnaire Subscales of Phase II participants**

Aggression subscale	Gambler	Affected other
Anger		
n	164	41
Range (min - max)	3 - 15	3 - 15
Mean (SD)	7.0 (3.4)	7.3 (3.4)
Median	6.0	8.0
Hostility		
n	161	41
Range (min - max)	3 - 15	3 - 15
Mean (SD)	7.2 (3.5)	7.9 (3.6)
Median	7.0	8.0

### Difficulties in Emotion Regulation Scale

Participants were administered three subscales of the Difficulties in Emotion Regulation Scale (DERS). The subscales were difficulties engaging in goal directed behaviour when experiencing negative emotions (Goals, e.g. When I'm upset I have difficulty getting work done), difficulties controlling impulses when experiencing negative emotions (Impulse, e.g. When I'm upset I become out of control), and limited access to emotional regulation strategies perceived as effective (Strategies, e.g. When I'm upset, I believe there is nothing I can do to make myself feel better). Possible scores ranged from 1 (almost never) to 5 (almost all of the time). On average, gamblers and affected others reported similar levels of emotion regulation for the three subscales. The median values indicated relatively good control in regulation of emotions (Table 34).

**Table 34: Difficulties in Emotion Regulation Subscales of Phase II participants**

DERS subscale	Gambler	Affected other
Goals		
n	164	40
Range (min - max)	5 - 25	5 - 22
Mean (SD)	12.5 (5.0)	12.1 (3.9)
Median	12.0	11.0
Impulse		
n	164	40
Range (min - max)	6 - 30	6 - 26
Mean (SD)	11.9 (5.2)	12.0 (4.6)
Median	11.0	11.5
Strategy		
n	164	40
Range (min - max)	8 - 38	8 - 31
Mean (SD)	16.7 (7.5)	15.8 (6.1)
Median	15.0	14.0

## General distress

The Symptom Rating Test was used to measure general distress (i.e. anxiety, depression, somatic symptoms and inadequacy symptoms). Possible scores ranged from 0 (never) to 2 (often) for each item (total range 0 to 16 for anxiety and depression, and range 0 to 14 for somatic symptoms and inadequacy symptoms). On average, gamblers and affected others reported similarly low levels of general distress for the four subscales (Table 35).

**Table 35: Symptom Rating Test of Phase II participants**

Symptom Rating Test subscale	Gambler	Affected other
Anxiety		
n	163	41
Range (min - max)	0 - 16	0 - 16
Mean (SD)	5.2 (4.0)	5.9 (4.2)
Median	5.0	5.0
Depression		
n	164	40
Range (min - max)	0 - 16	1 - 13
Mean (SD)	7.1 (4.6)	6.4 (3.8)
Median	7.0	6.0
Inadequacy		
n	161	41
Range (min - max)	0 - 14	0 - 13
Mean (SD)	5.6 (3.8)	6.0 (3.5)
Median	5.0	5.0
Somatic		
n	163	40
Range (min - max)	0 - 13	0 - 13
Mean (SD)	3.5 (3.3)	3.5 (3.0)
Median	2.0	3.5

## 4.5 Phase II - Family/whānau violence

In this section, descriptive results pertaining to family/whānau violence amongst the Phase II participants is presented.

Section 4.5.1 relates to being a victim or perpetrator of family/whānau violence. Family/whānau violence includes physical, verbal, emotional, sexual and financial violence. Financial violence is presented separately towards the end of the subsection as the financial violence questions were worded differently from the other violence questions.

Section 4.5.2 details the relationship between family/whānau violence and gambling, based on the participants' perceptions of chronology. Quantitative and qualitative data are presented.

### 4.5.1 Occurrence of family/whānau violence

#### Occurrence of any family/whānau violence

Using the HITS scale, and sexual and financial abuse questions, more than half of the gambler participants reported being victims (61%) or perpetrators (52%) of physical, verbal, emotional, sexual or financial violence in the past 12 months. However, as was noted in Phase I, it was apparent that affected others reported more family/whānau violence than gamblers, with 83% reporting being victims and 62% reporting being perpetrators (Table 36). The severity and frequency of the violence were not recorded.

**Table 36: Any family/whānau violence among Phase II participants by help-seeking status**

Violence	Victim %		Perpetrator %	
	Gambler n=166	Affected other n=42	Gambler n=166	Affected other n=42
Yes	60.8	83.3	51.8	61.9
No	38.0	16.7	47.0	38.1
Missing	1.2	-	1.2	-

Reporting of family/whānau violence in Phase I was compared with reporting in Phase II (Table 37 and Table 38). Slightly more than three-quarters (75% - 81%) of gamblers who reported either being or not being victims or perpetrators in Phase I also reported the same in Phase II. There was slightly more consistency in reporting by affected others with at least 80% (80% - 87%) reporting the same in both phases, with one exception. Only 55% of affected other participants who reported no victimisation in Phase I, continued to report no victimisation in Phase II; 45% who reported no victimisation in Phase I then reported being victims in Phase II. Note that financial violence was included in family/whānau violence in the second phase but not the first phase.

**Table 37: Concordance between Phase I and Phase II - being a victim of family/whānau violence**

Phase II victim	Phase I victim			
	Yes %		No %	
	Gambler n=81	Affected other n=31	Gambler n=85	Affected other n=11
Yes	75.3	87.1	23.5	45.5
No	22.2	12.9	76.5	54.6
Not reported	2.5	-	-	-

Percentages do not always equal 100% due to rounding

**Table 38: Correlation between Phase I and Phase II - being a perpetrator of family/whānau violence**

Phase II perpetrator	Phase I perpetrator			
	Yes %		No %	
	Gambler n=95	Affected other n=27	Gambler n=71	Affected other n=15
Yes	76.1	85.2	17.9	20.0
No	22.5	14.8	81.1	80.0
Not reported	1.4	-	1.1	-

Percentages do not always equal 100% due to rounding

### Physical, verbal, emotional and sexual violence

Table 39 shows the occurrence of physical, verbal, emotional and sexual violence among Phase II participants for gamblers and affected others. The severity and frequency of the violence were not recorded. Financial abuse data are presented later.

In Phase II, about half (49%) of gamblers and three-quarters (76%) of affected others reported being a victim of violence from a current or ex-partner or other family/whānau member in the past 12 months. Two-fifths (43%) of gamblers and almost two-thirds (62%) of affected others reported perpetrating the violence. As was noted in Phase I, the most common type of violence was verbal abuse being ‘screamed or cursed at’ and ‘insulted or talked down to’. ‘Threatened with harm’ was the next most common form of violence reported by gamblers; for affected others a greater proportion reported perpetrating actual physical harm (19%) than threatening harm (14%). Less than 10% of gamblers reported being victims or perpetrators of physical harm, whilst 19% of affected others reported being a victim of physical harm. Five percent of affected others and three percent of gamblers reported being victims of sexual abuse. Two percent of affected others reported perpetrating sexual abuse compared to none of the gamblers. *Due to the small sample size for affected others, all percentages should be treated as indicative rather than absolute.*

As in Phase I, it was apparent that affected others reported more family/whānau violence (both as victims and perpetrators) than gamblers. This was noted for all the forms of violence.



**Table 39: Physical, verbal, emotional and sexual violence among Phase II participants by help-seeking status**

Type of violence	Victim %		Perpetrator %	
	Gambler n=164	Affected other n=42	Gambler n=164	Affected other n=42
Physically hurt	6.1	19.1	7.3	19.1
Insulted or talked down to	36.0	66.7	31.7	47.6
Threatened with harm	9.2	26.2	8.0	14.3
Screamed or cursed at	43.9	64.3	39.0	52.4
Forced to have sexual activities	3.1	4.8	-	2.4
<i>Any violence (excluding financial)</i>	<i>49.4</i>	<i>76.2</i>	<i>43.3</i>	<i>61.9</i>

### Ethnicity

When family/whānau violence in Phase II was examined by ethnicity, some differences between the populations were noted (Table 40 and Table 41), and were similar to those noted in Phase I. About twice as many Māori gamblers reported being a victim of physical violence (10%) compared with the other groups (4% to 6%), and both Māori and Pacific gamblers were more likely to report perpetrating physical violence (19% and 15% respectively) than Asian (none) or European/Other (4%) gamblers. A higher proportion of Māori gamblers (26%) reported being victims of being threatened with harm than the other ethnicities (5% to 7%). Similarly, a higher proportion of Māori and Pacific gamblers reported threatening family/whānau members with harm (13% and 21% respectively) compared with Asian (4%) and European/Other (5%) gamblers. Twice as many Māori gamblers reported being victims of sexual abuse (7%) than the other groups (2% to 4%); no gambler participants reported perpetrating sexual abuse. A lower proportion of Asian gamblers reported being victims or perpetrators of insulting, screaming or cursing behaviour compared with the other groups.

Due to very small sample sizes for affected other participants, it is less easy to draw explicit conclusions on affected other victims or perpetrators of violence by ethnicity. However, it appears that affected others of all ethnic groups reported, overall, a higher percentage of being victims of family/whānau violence than gamblers (Table 40). A different profile was noted for violence perpetration, with a higher proportion of Asian and European/Other affected others generally reporting perpetrating violence in comparison to gamblers, compared with Māori and Pacific participants who were similar amongst gamblers and affected others (Table 41).

**Table 40: Violence victimisation among Phase II participants by ethnicity and help-seeking status**

Type of violence	Gambler victim%				Affected other victim%			
	Māori n=31	Pacific n=20	Asian n=29	Euro/Other n=82	Māori n=5	Pacific n=7	Asian n=11	Euro/Other n=19
Physically hurt	9.7	5.0	3.5	6.1	-	28.6	18.2	21.1
Insulted or talked down to	41.9	50.0	20.7	36.6	60.0	71.4	63.6	68.4
Threatened with harm	25.8	5.0	6.9	4.9	40.0	28.6	27.3	21.1
Screamed or cursed at	61.3	50.0	24.1	43.9	60.0	85.7	54.6	63.2
Forced to have sexual activities	6.5	-	3.5	2.4	20.0	-	9.1	-
<i>Any violence (excluding financial)</i>	<i>61.3</i>	<i>60.0</i>	<i>27.6</i>	<i>51.2</i>	<i>60.0</i>	<i>85.7</i>	<i>72.7</i>	<i>73.7</i>

Note: The ethnicity of two participants was not reported

**Table 41: Violence perpetration among Phase II participants by ethnicity and help-seeking status**

Type of violence	Gambler perpetrator %				Affected other perpetrator %			
	Māori n=31	Pacific n=20	Asian n=29	Euro/Other n=82	Māori n=5	Pacific n=7	Asian n=11	Euro/Other n=19
Physically hurt	19.4	15.0	-	3.7	-	14.3	36.4	15.8
Insulted or talked down to	41.2	40.0	13.8	32.9	40.0	14.3	63.6	52.6
Threatened with harm	12.9	21.1	3.5	4.9	20.0	28.6	27.3	-
Screamed or cursed at	67.7	50.0	17.2	34.2	60.0	42.9	63.6	47.4
Forced to have sexual activities	-	-	-	-	-	-	9.1	-
Any violence (excluding financial)	71.0	55.0	17.2	40.2	60.0	42.9	81.8	57.9

Note: The ethnicity of two participants was not reported

## Financial abuse

Eighteen percent (n=30) of gambler participants and 12% (n=5) of affected other participants reported that they do not manage their own money. For those people, their money was managed by a close family member such as a partner, parent or adult child.

It is apparent from Table 42 that gamblers were more likely to report being perpetrators of financial abuse than affected others and thus that affected others were more likely to report being victims. Almost half of the affected others (45%) reported being concerned about their money, valuables or property going missing compared with 11% of gamblers. More than one-quarter of affected other participants reported that a family/whānau member had taken money from their purse or wallet without permission (29%) or taken money from their bank account without permission (26%), compared with only 3% and 0.6% of gamblers respectively. Conversely, 18% of gamblers reported having taken money from a purse or wallet without permission and 13% reported taking money from a family/whānau member's bank account without permission. The corresponding percentages for affected others were two percent and none.

Whilst a higher proportion of affected others reported being asked to sign papers about money that they did not understand or want to sign (7%) compared with gamblers (2%), affected others were also more likely to be perpetrators of this type of financial violence (8% vs 2%).

Five percent of affected others reported being forced to gamble for a family/whānau member; none reported forcing someone else to gamble for them. One percent of gamblers reported being forced to gamble for someone else and 0.6% reported doing the forcing.

*Due to the small sample size for affected others, all percentages should be treated as indicative rather than absolute.*

The family/whānau member who was the perpetrator of the financial abuse was generally a current partner (spouse or de facto partner) or another close family member such as parent, child, sibling or ex-partner. Reported victims of financial abuse were more extensive including extended family such as cousin, uncle, aunt, in-law, grandparent and friend.

**Table 42: Financial violence among Phase II participants by help-seeking status**

Type of violence	Participant group	
	Gambler % n=164	Affected Other % n=42
<b>Victimisation</b>		
Concerned about your money, valuables or property going missing	11.0	45.2
Family/whānau member has taken money from your purse or wallet without permission	3.1	28.6
Family/whānau member has taken money from your bank account without permission	0.6	26.2
Family/whānau member has asked you to sign papers about money that you did not understand or want to sign	2.4	7.1
Family/whānau member forced you to gamble for them	1.2	4.8
<b>Perpetration</b>		
Taken anything from a family/whānau member's purse or wallet without permission	17.7	2.4
Taken anything from a family/whānau member's bank account without permission	12.8	-
Asked family/whānau member to sign papers about money that they did not understand or want to sign	2.4	7.8
Forced a family/whānau member to gamble for you	0.6	-

#### **4.5.2 Relationship between gambling and violence**

##### **Victims of family/whānau violence**

Participants who identified that they had been victims of some aggressive behaviour (family/whānau violence) were asked about the typical relationship between gambling and the aggressive behaviour. Participants could indicate that “Most often, this aggressive behaviour occurs in response to the gambling” or vice versa, that “Most often, the gambling occurs in response to this aggressive behaviour”. They could also indicate a mix of the two “Sometimes this aggressive behaviour occurs in response to the gambling and sometimes the gambling occurs in response to this aggressive behaviour”. Alternatively, participants could indicate that “There is no relationship between the gambling and this aggressive behaviour”. Participants were prompted to choose the option that best described their situation. A summary of the typical relationship between gambling and aggressive behaviour experienced by gamblers and affected others is presented in Table 43.

A higher proportion of affected others who were victims of violence reported that the violence was caused by the gambling behaviour (46%) compared with gamblers (21%). Conversely, a higher proportion of gamblers who were victims of family/whānau violence reported that there was no relationship between gambling and the violence (24%) compared with 11% of affected others. However, twice as many gamblers (11%) as affected others (6%) reported that the gambling occurred in response to the aggressive behaviour.

Similar proportions of gamblers and affected others who were victims of violence reported that the gambling and violence could each occur because of the other.

**Table 43: Typical relationship between gambling and violence reported by Phase II victims**

<b>Relationship</b>	<b>Gambler % n=101</b>	<b>Affected Other % n=35</b>
There is no relationship between the gambling and this aggressive behaviour	23.8	11.4
Sometimes this aggressive behaviour occurs in response to the gambling and sometimes the gambling occurs in response to this aggressive behaviour	21.8	28.6
Most often, this aggressive behaviour occurs in response to the gambling	20.8	45.7
Most often, the gambling occurs in response to this aggressive behaviour	10.9	5.7
Not reported	22.8	8.6

Victim participants were invited to say more about the typical relationship between gambling and violence via an open-ended question<sup>25</sup>. Twenty-six gamblers and thirty-two affected others elaborated on their responses.

### Gamblers

Gambler victims who reported that most often the aggressive behaviour from their family/whānau members occurred in response to the gambling commented that this was due to frustration and distress caused by the gambling, particularly in relation to gambled money or unmet family/whānau obligations. For example, “My wife screamed and cursed at me when I did not bring money to her. I was supposed to give her money to pay the mortgage, but I quite often was not able to due to gambling”.

Gambler victims who reported that most often their gambling occurred in response to family/whānau members’ violent behaviour talked about using gambling to escape from pressured family/whānau environments. For example, “There are a lot of cultural and family expectations placed on me because I am the eldest. Gambling is my escape from expectation that I can’t or don’t meet in their eyes, I am a disappointment and I am constantly told that” and “I had the feeling that my sisters expected me to fail in life and they provoked me. They set me up to fail and I did”.

Gambler victims who reported that sometimes their family/whānau members’ aggression occurred in response to the gambling and sometimes gambling occurred in response to the aggression mentioned that a lack of respect and trust went both ways in their relationships. For example, “Sometimes I initiate an argument, sometimes she does. I initiate it out of frustration, she initiates it out of a lack of understanding”, and “A mutual distrust has on occasion resulted in aggressive arguments”.

Gambler victims who reported no relationship between the gambling and the aggressive behaviour made reference to ‘typical family arguments’ and tended to link these to the personality or age of their family members and not to gambling per se. For example, “Just been my daughter yelling, and that’s what teenagers do these days”, and “My wife has been abusive verbally since I met her”.

<sup>25</sup> Some of the quotations detailed were written verbatim by the researchers conducting the interviews and some relate to brief notes taken by the researchers.

### Affected others

Of the affected other victims who reported that most often the aggressive behaviour occurred in response to the gambling, two commented that the gambler in the family used violence to get money to gamble. For example, “He yelled to force me to sell the house to get money to gamble. Tried to convince me that he is doing business/investment”. However, most described how gambling losses or lack of sleep put the gambler in a bad mood, which caused them to behave violently. For example, “He takes it out on me when he is having a bad day, I guess. This started roughly at the same time as the gambling so there is definitely a link there”.

Affected other victims who reported that sometimes the aggressive behaviour occurred in response to the gambling and sometimes the gambling occurred in response to the aggressive behaviour said that the gambler would become aggressive when they had lost money and they would also gamble after stressful incidents at home. For example, “I found that my husband has become aggressive when he lost money as well as he went back to gamble when he was angry or was in a low mood”, and “She engages in stand-over tactics for money, my daughter would not leave the room until I gave her money; when upset she would go gamble”.

Similar to gamblers, affected other victims who reported that there was no relationship between the violence and gambling, highlighted aspects of the gambler’s personality or age as triggering the violence. For example, “It’s only when something triggers my partner in relation to relationships. He is very obsessive, but not related to gambling”.

### **Perpetrators of family/whānau violence**

Participants who reported that they had perpetrated violence towards their family/whānau members were also asked about the typical relationship between that violence and gambling. These relationships are summarised in Table 44.

The largest proportions both of gamblers and affected others reported that their aggressive behaviour occurred in response to gambling (33% and 54% respectively). A similar proportion both of gamblers and affected others reported that there was no relationship between their violence and gambling (26% gamblers, 23% affected others). Five percent of gamblers reported that most often their gambling occurred in response to the violence perpetrated by their family/whānau member. No affected others reported this, though this could be an artefact of the small sample size. Almost twice as many gamblers (27%) as affected others (15%) reported that the gambling and violence could each occur because of the other.

**Table 44: Typical relationship between gambling and violence reported by Phase II perpetrators**

<b>Relationship</b>	<b>Gambler % n=86</b>	<b>Affected Other % n=26</b>
There is no relationship between the gambling and this aggressive behaviour	25.6	23.1
Sometimes this aggressive behaviour occurs in response to the gambling and sometimes the gambling occurs in response to this aggressive behaviour	26.7	15.4
Most often, this aggressive behaviour occurs in response to the gambling	32.6	53.9
Most often, the gambling occurs in response to this aggressive behaviour	4.7	-
Not reported	10.5	7.7

Twenty-four gamblers and 19 affected others responded to the open-ended question<sup>26</sup> requesting further information about the relationship between gambling and perpetration of family/whānau violence.

### Gamblers

Gamblers reported that aggressive behaviour in response to the gambling was due to the tension, anger and frustration caused by out-of-control gambling. Mutual frustration, mistrust and confrontation were mentioned by those gamblers who felt that sometimes their aggressive behaviour occurred in response to the gambling and sometimes the gambling occurred in response to the aggressive behaviour.

### Affected others

Affected others reported that anger and frustration caused by gambling led to their violent behaviour. For example, “If there was no gambling there'd be no issues”, and “I was angry because I was not able to understand his gambling and how he could have brought lots of difficulties to me and my two daughters. Maybe that's why I screamed and threatened him to stop gambling”. Affected others who said there was no relationship explained that the violence was related to their particular family relationship issues, which preceded any gambling issue.

## **4.6 Phase II gamblers - Associations with family/whānau violence**

This section details associations with family/whānau violence (excluding financial abuse)<sup>27</sup> for Phase II gamblers. Family/whānau violence included physical, verbal, emotional or sexual violence in the past 12 months. Bivariate associations and multiple logistic regression analyses were performed. Section 4.6.1 details the associations with being a victim of family/whānau violence and section 4.6.2 details the associations with being a perpetrator of family/whānau violence.

### **4.6.1 Associations with being a victim of violence for gamblers**

#### **Bivariate associations**

Data are presented in Appendix 2.

Bivariate associations with being a victim of family/whānau violence, examined using logistic regression, identified several statistically significant variables. Broadly, these fit into categories of violence perpetration, ethnicity, family living arrangements, gambling behaviour, gambling impacts and co-existing issues.

*Due to some small sample sizes, indicated where confidence intervals are wide, odds ratios should be considered indicative rather than absolute.*

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<sup>26</sup> Some of the quotations detailed were written verbatim by the researchers conducting the interviews and some relate to brief notes taken by the researchers.

<sup>27</sup> The financial abuse questions were included as variables in the model as they were worded differently from the other family violence questions.

### Violence perpetration

Being a perpetrator of family/whānau violence (excluding financial abuse) was significantly associated with 14.4 times higher risk of being a victim of family/whānau violence than not perpetrating any violence. Additionally, threatening to harm a family/whānau member (3.8 times higher), insulting or talking down to a family/whānau member (11.2 times higher), and screaming or cursing at a family/whānau member (14.6 times higher) were significantly associated with increased risk of being a victim, compared to not doing those things.

Similarly, being a perpetrator of any financial violence was significantly associated with 2.6 times higher risk of being a victim of family/whānau violence. Taking money from a purse/wallet without permission (4.1 times higher) and taking money from a bank account without permission (2.9 times higher) were associated with increased risk of being a victim, compared to not doing those things.

### Ethnicity

Asian participants had one-third the risk of being a victim of family/whānau violence (0.4 times) than European/Other participants.

### Family living arrangements

Being a one-parent family, in comparison to living alone, was significantly associated with five times higher risk of being a victim of family/whānau violence. Having children less than 18 years of age living at home was associated with three times higher risk of being a victim than not having any children at home. The risk was higher for having one child at home (almost four times higher) than having multiple children at home (2.6 times higher). If the eldest child scored as hyperactive (borderline or abnormal), a statistically significant higher risk of being a victim was noted (6.1 times higher) than having a child who scored as normal. Similarly, if the total Strengths and Difficulties Questionnaire score for the eldest child was in the borderline or abnormal range, there was a significant association with being a victim (4.0 times higher), compared to having an eldest child with a normal total score.

### Gambling behaviour

For participants whose main problematic gambling activity was pub or club electronic gaming machines (EGMs), a significantly higher association with being a victim of family/whānau violence was noted (2.6 times), compared with not having pub or club EGMs as the main problematic gambling activity.

However, having casino gambling (table games and EGMs) as the main problematic gambling activity was associated with *less* risk of being a victim (0.4 times lower).

Participants who scored in the upper quartile of the coping subscale of the Gambling Motives Questionnaire (i.e. those with high internal negative reinforcement who were gambling to reduce or avoid negative emotions) had four times the risk of being a victim of family/whānau violence than participants who scored in the lowest quartile.

### Gambling impacts

Participants with a Victorian Problem Gambling Family Impact Scale in the upper two quartiles (i.e. those who were experiencing the greatest negative effects from problem gambling) had 4.4 and

7.3 times higher risk of being a victim of family/whānau violence than participants in the lowest quartile.

### Co-existing issues

Participants who were risky alcohol drinkers had twice the risk of being a victim of family/whānau violence than participants who were not risky drinkers. Participants with a high level of general psychological distress had 3.6 times the risk of being a victim than participants with a low level of psychological distress.

Participants who had family/whānau members with a drug issue in the prior 12 months had a significantly higher risk of being a victim of family/whānau violence (2.8 times higher) than participants who did not have family/whānau members with drug problems.

Scoring in the upper three quartiles on the Buss-Perry Aggression Questionnaire anger subscale was associated with a significantly higher risk (2.5 to 4.0 times) of being a victim than scoring in the lowest quartile.

Scoring in the second and fourth quartiles of the limited access to emotional regulation strategies subscale of the Difficulties in Emotion Regulation Scale was associated with 3.2 and 4.1 times the risk respectively, of being a victim compared with scoring in the lowest quartile. A similarly increased risk was noted for participants in the upper three quartiles (2.6 to 4.3 times higher) of the difficulties controlling impulses subscale.

Scoring in the upper two quartiles of the anxiety, somatic symptoms and inadequacy symptoms subscales, and the top three quartiles of the depression subscale of the Symptom Rating Test were associated with higher risk of being a victim of family/whānau violence (ranging from 2.3 to 5.6 times higher) than scoring in the lowest quartile of these subscales.

### **Multiple logistic regression**

Multiple logistic regression analyses showed having children less than 18 years of age living at home remained associated with being a victim of family/whānau violence at almost four times higher risk, compared with not having any children at home.

The only other finding which remained statistically significantly associated with being a victim of family/whānau violence in the multiple logistic regression analyses was for participants with a Victorian Problem Gambling Family Impact Scale in the upper two quartiles (i.e. those who were experiencing the greatest negative effects from problem gambling). Participants in the third quartile had three times higher risk and participants in the fourth quartile had almost 17 times higher risk, compared with participants in the lowest quartile. *However, the confidence intervals were wide indicating small sample sizes, so these risk values should be considered indicative rather than absolute.*

Data are presented in Table 45.



**Table 45: Phase II gamblers multiple logistic regression for being a victim of family/whānau violence**

Variable	Odds Ratio	(95% CI)	p-value
<b>Children less than 18 years usually living in household</b>			
No	1.00		
Yes	3.88	(1.65, 9.15)	0.002
<b>Victorian Problem Gambling Family Impact score (quartiles)</b>			
18 or less	1.00		
19 - 31.5	1.28	(0.42, 3.89)	
31.6 - 45	3.26	(1.07, 9.88)	
46 or more	16.89	(4.55, 62.72)	<0.0001

#### 4.6.2 Associations with violence perpetration by gamblers

##### Bivariate associations

Data are presented in Appendix 3.

Bivariate associations with family/whānau violence perpetration examined using logistic regression identified several statistically significant variables. These were very similar to those identified for associations with being a victim of family/whānau violence and broadly fit into categories of being a victim of violence or perpetrator of financial abuse, gender, ethnicity, family living arrangements, gambling behaviour, gambling impacts and co-existing issues.

*Due to some small sample sizes, indicated where confidence intervals are wide, odds ratios should be considered indicative rather than absolute.*

##### Being a victim of violence or a perpetrator of financial abuse

Being a victim of family/whānau violence (excluding financial abuse) was significantly associated with 14.4 times higher risk of being a perpetrator of family/whānau violence, than not being a victim of violence. Additionally, being a victim of physical violence from a family/whānau member (5.8 times higher), being a victim of threats of harm (4.1 times higher), being a victim of insults or being talked down to (8.0 times higher) and being screamed or cursed at (18.0 times higher), were significantly associated with increased risk of being a perpetrator, compared to not being a victim of those types of violence.

Similarly, being a perpetrator of any financial abuse was significantly associated with 3.2 times higher risk of perpetrating family/whānau violence. Additionally, taking money from a purse/wallet without permission (3.7 times higher) and taking money from a bank account without permission (5.1 times higher) were associated with increased risk of perpetrating family/whānau violence, compared to not doing these things.

##### Gender

Males had a statistically significant *lower* risk (about half) of perpetrating family/whānau violence than females.

### Ethnicity

Māori participants had 3.6 times higher risk of perpetrating family/whānau violence, and Asian participants had 0.3 times lower risk of perpetrating violence, compared to European/Other participants.

### Family living arrangements

Having children less than 18 years of age living at home was associated with 2.4 times higher risk of perpetrating family/whānau violence than not having any children at home. The risk was associated with having more than one child at home (2.7 times higher), in comparison with not having any children at home. Participants had a higher risk of perpetrating violence if their eldest child scored as borderline or abnormal for emotional symptoms (6.8 times higher) than if the child showed normal emotional symptoms. Similarly, if the total Strengths and Difficulties Questionnaire score for the eldest child was in the borderline or abnormal range, there was a significant association with the participant being a perpetrator (4.8 times higher) compared to having an eldest child with a normal total score.

Although a level of statistical significance ( $p=0.04$ ) was attained for living arrangements (various combinations of family members vs. living alone), all the confidence intervals spanned 1 and some were relatively wide. This finding is likely to be an artefact of confounding factors and some small sample sizes.

### Gambling behaviour

For participants whose main problematic gambling activity was pub or club electronic gaming machines (EGMs), a significantly higher association with being a perpetrator of family/whānau violence was noted (2.6 times), compared with not having pub or club EGMs as the main problematic gambling activity.

However, having casino gambling (table games and EGMs) as the main problematic gambling activity was associated with *less* risk of being a perpetrator (0.3 times lower).

Participants who had attended counselling or who had received medication for their gambling in the previous 12 months had a statistically significant higher risk of being a perpetrator of family/whānau violence compared with participants who had not received counselling or medication. For participants who were not currently receiving the assistance the risk was 3.5 times higher and for participants who were currently receiving assistance it was 3.9 times higher.

### Gambling impacts

Participants with a Victorian Problem Gambling Family Impact Scale in the upper two quartiles (i.e. those who were experiencing the greatest negative impact from problem gambling) had 2.6 and 4.9 times higher risk of perpetrating family/whānau violence than participants in the lowest quartile.

### Co-existing issues

Participants with a high level of general psychological distress had three times the risk of perpetrating family/whānau violence than participants with a low level of psychological distress.

Participants who had family/whānau members with an alcohol or a drug issue in the prior 12 months had a significantly higher risk of perpetrating family/whānau violence (2.3 and 3.7 times higher respectively) than participants who did not have family/whānau members with alcohol or drug problems. Ex-smokers had a *lower* risk of perpetrating violence (0.2 times) compared with people who had never smoked.

Scoring in the upper three quartiles on the Buss-Perry Aggression Questionnaire anger subscale was associated with a significantly higher risk (3.4 to 10.7 times, increasing by quartile) of being a perpetrator than scoring in the lowest quartile.

Scoring in the second and fourth quartiles of the limited access to emotional regulation strategies subscale of the Difficulties in Emotion Regulation Scale was associated with four times the risk of being a perpetrator compared with scoring in the lowest quartile. A similarly increased risk was noted for participants in the upper three quartiles of the difficulties controlling impulses subscale (2.7 to 5.4 times higher, generally increasing with quartile).

Scoring in the upper two quartiles of the anxiety subscale and the fourth quartile of the somatic symptoms subscale of the Symptom Rating Test were associated with higher risk of being a perpetrator of family/whānau violence (ranging from 2.7 to 4.9 times higher) than scoring in the lowest quartile of these subscales.

### Multiple logistic regression

Multiple logistic regression analyses showed that if the total Strengths and Difficulties Questionnaire score for the eldest child was in the borderline or abnormal range, compared to being in the normal range, a higher risk of perpetrating family/whānau violence remained in the multiple logistic regression analyses (13.6 times higher). *However, the confidence interval was very wide indicating a very small sample size, so this risk value should be considered indicative rather than absolute.*

Participants who had attended counselling or who had received medication for their gambling in the previous 12 months (but were not currently receiving assistance) remained at statistically significant higher risk of being a perpetrator of family/whānau violence (7.6 times higher) than participants who had not received counselling or medication. For participants who were currently receiving the assistance the risk was five times higher although the confidence intervals overlapped 1. *The confidence intervals were wide in both cases, indicating small sample sizes; thus, this finding should be considered indicative only.*

In the multiple logistic regression analyses, some co-existing issues continued to be statistically significantly associated with perpetration of family/whānau violence. Participants who had family/whānau members who had a mental health issue in the prior 12 months had a three times higher risk for perpetrating violence than if their family/whānau members had not had a mental health issue. This finding just failed to attain a level of statistical significance in the bivariate association analyses ( $p=0.07$ ). Additionally, ex-smokers had a *lower* risk of perpetrating violence (0.1 times) compared with people who had never smoked; *however, the confidence interval was very wide indicating a very small sample size, so this risk value should be considered indicative rather than absolute.*

Scoring in the upper three quartiles on the Buss-Perry Aggression Questionnaire anger subscale remained associated with a significantly higher risk (4.6 to 38.9 times, increasing by quartile) of being a perpetrator than scoring in the lowest quartile. *However, due to very small sample sizes, the confidence intervals are very wide meaning that the risk levels should be considered indicative rather than absolute.*

Scoring in the second quartile of the limited access to emotional regulation strategies subscale of the Difficulties in Emotion Regulation Scale remained associated with 2.6 times the risk of being a perpetrator compared with scoring in the lowest quartile; however, due to small sample sizes, the confidence intervals are very wide and span 1. Contradictorily, scoring in the third quartile was associated with a *lower* risk of being a perpetrator (0.1 times lower). *Due to the small sample sizes and conflicting results, these findings should be considered with caution.*

In the multiple logistic regression analyses, having current or impending legal matters related to gambling was associated with 14 times higher risk of perpetrating family violence than not having legal matters. This finding was not noted in the bivariate association analyses. *However, the sample size was extremely small (evidenced by the very large confidence intervals), thus this finding should be considered indicative only.*

Data are presented in Table 46.

**Table 46: Phase II gamblers multiple logistic regression for being a perpetrator of family/whānau violence**

Variable	Odds Ratio	(95% CI)	p-value
<b>Strengths and Difficulties Questionnaire - Total score excluding prosocial behaviour</b>			
Normal	1.00		
Borderline or abnormal	13.55	(1.95, 93.99)	0.008
<b>Received counselling or medication for gambling in past 12 months</b>			
No	1.00		
Yes, but not now	7.64	(1.90, 30.68)	
Yes, currently	4.50	(0.79, 25.67)	0.008
<b>Tobacco use</b>			
Never	1.00		
Ex-smoker	0.07	(0.01, 0.75)	
Smoker	1.58	(0.58, 4.29)	0.04
<b>Mental health issue in family/whānau in past 12 months</b>			
No	1.00		
Yes	3.09	(1.02, 9.31)	0.05
<b>Anger score (Buss-Perry Aggression Questionnaire) (quartiles)</b>			
3.5 or less	1.00		
4 - 6	4.55	(1.20, 17.27)	
6.5 - 10	12.93	(2.89, 57.93)	
10.5 or more	38.93	(6.25, 242.65)	0.0007
<b>Strategies score (Difficulties in Emotion Regulation Scale) (quartiles)</b>			
10 or less	1.00		
11 - 15	2.62	(0.71, 9.66)	
16 - 22	0.14	(0.03, 0.62)	
23 or more	0.54	(0.11, 2.64)	0.002
<b>Current or impending court or legal matters related to gambling</b>			
No	1.00		
Yes	14.09	(1.99, 99.89)	0.008

## **4.7 Phase II - Intimate partner violence**

Descriptive data pertaining to intimate partner violence for Phase II participants are detailed in this section. Intimate partner violence specifically relates to violence experienced or perpetrated between people in a current relationship (married or de facto relationship; living with or separately from partner). This differs from the family/whānau violence detailed earlier, which relates to violence experienced or perpetrated between any close or extended family/whānau members (but which included intimate partners).

Section 4.7.1 details the percentage of Phase II gambler participants in an intimate partner relationship and the length of the relationship.

Section 4.7.2 details intimate partner violence and results of the Woman Abuse Screen Tool, the Revised Conflict Tactics Scale and the Composite Abuse Scale.

Section 4.7.3 details the perceived relationship between problem gambling and intimate partner violence and includes results relating to chronology (i.e. which comes first) and the factors involved.

### **4.7.1 Intimate partner relationships**

Ninety-nine gamblers (60% of sample, n=164) and 34 affected others (81% of sample, n=42) reported being in a current intimate partner relationship. The median length of the relationship was nine years (range 0.5 - 50 years) for gamblers and 13 years (range 1.3 - 40 years) for affected others.

### **4.7.2 Intimate partner violence**

Of the participants in a current intimate partner relationship, 51.5% (n=51) of gamblers and 73.5% (n=25) of affected others reported being a victim of any family/whānau violence, with their current partner being the perpetrator of the violence. Of the 25 affected others, all but one identified their partner as having a gambling problem.

The median number of years where the partner's aggressive behaviour had been a problem was five years (range 0 - 30 years) for gamblers and three years (range 0 - 25 years) for affected others.

Forty-three percent (n=43) of gamblers and 62% (n=21) of affected others reported perpetrating family/whānau violence against their current partner. All of these affected others identified their current partner as a problem gambler.

The median numbers of years of family/whānau violence perpetration by the participants was three years (range 0 - 64 years) for gamblers and 3.5 years (range 0.5 - 10 years) for affected others.

### **Woman Abuse Screen Tool**

The Woman Abuse Screen Tool - short version was used to assess tension in the relationships and how partners worked out arguments. A positive score was assigned if the response to the tension question was "a lot" or "some", or if the response to the working out arguments question was "great difficulty" or "some difficulty". This gave a maximum positive score of two. Although the median score for gamblers and affected others was zero, indicating a very low overall level of tension and difficulty in working out arguments, the mean scores were 0.3 (SD 0.6) for gamblers and 0.6 (SD 0.9) for affected others. This could indicate that of those participants who experienced tension and arguments with their

intimate partner, affected others were more likely to be having problems and thus more likely to be at risk of family/whānau violence. However, due to the small sample size of affected others, this finding should be viewed cautiously.

### Revised Conflict Tactics Scale

Intimate partner violence (being a victim and/or a perpetrator) was measured using the Revised Conflict Tactics Scale - short version (CTS). Each subscale was scored according to occurrence (yes/no) and had a maximum score of two (two questions per subscale). The exception was for the negotiation questions which were scored according to the midpoint of the range as it was less easy to dichotomise the responses; the maximum score was 50.

Table 47 shows that scores were similar between gamblers and affected others with most (excluding negotiation) showing a median value of zero and low mean values. The exception was for minor psychological aggression with median scores of 1.0 and 2.0 respectively for gamblers and affected others. Minor psychological aggression was measured via the questions “You insulted or swore or shouted or yelled at your partner” and “Your partner did this to you”. This finding corroborates previous findings discussed earlier, which showed that verbal abuse was the most prevalent form of family/whānau violence in this study population. Cognitive and emotional negotiation was similar between gamblers and affected others with median values at the mid-range or less.

**Table 47: Revised Conflict Tactics Scale for Phase II participants in an intimate partner relationship**

CTS subscale	Gambler	Affected other
Physical assault - minor		
n	99	33
Range (min - max)	0 - 2	0 - 2
Mean (SD)	0.3 (0.6)	0.4 (0.7)
Median	0.0	0.0
Physical assault - severe		
n	99	34
Range (min - max)	0 - 2	0 - 2
Mean (SD)	0.1 (0.4)	0.3 (0.6)
Median	0.0	0.0
Injury - minor		
n	99	34
Range (min - max)	0 - 2	0 - 2
Mean (SD)	0.2 (0.5)	0.3 (0.6)
Median	0.0	0.0
Injury - severe		
n	99	33
Range (min - max)	0 - 1	0 - 1
Mean (SD)	0.0 (0.1)	0.1 (0.2)
Median	0.0	0.0

CTS subscale	Gambler	Affected other
Negotiation - cognitive		
n	91	34
Range (min - max)	0 - 50	0 - 50
Mean (SD)	19.0 (17.8)	22.6 (20.1)
Median	12.0	16.0
Negotiation - emotional		
n	96	33
Range (min - max)	0 - 50	0 - 50
Mean (SD)	27.2 (20.5)	24.2 (18.5)
Median	19.5	25.0
Psychological aggression - minor		
n	98	34
Range (min - max)	0 - 2	0 - 2
Mean (SD)	1.1 (0.9)	1.4 (0.8)
Median	1.0	2.0
Psychological aggression - severe		
n	99	34
Range (min - max)	0 - 2	0 - 2
Mean (SD)	0.3 (0.6)	0.4 (0.7)
Median	0.0	0.0
Sexual coercion - minor		
n	99	34
Range (min - max)	0 - 2	0 - 1
Mean (SD)	0.1 (0.3)	0.1 (0.3)
Median	0.0	0.0
Sexual coercion - severe		
n	99	34
Range (min - max)	0 - 2	0 - 0
Mean (SD)	0.0 (0.1)	0.0 (0.0)
Median	0.0	0.0

## Composite Abuse Scale

The emotional abuse and harassment subscales of the Composite Abuse Scale were used to measure the partner's abusive behaviours in a past 12-month time frame with emotional abuse comprising verbal, psychological, dominance and social isolation abuse items (Table 48). Median and mean values were similar between gamblers and affected others for harassment. However, for emotional abuse, whilst the median values were low indicating that many participants did not report this finding, affected others had a median value twice that of gamblers. This implies that more affected others were victims of emotional abuse from their partners, compared with gamblers. Due to the small sample size of affected others, this finding needs to be viewed cautiously and is only an indication. The standard deviation was large for gamblers and affected others, and could mean that, in fact, there was no difference between them.

**Table 48: Phase II victims of emotional abuse and harassment from an intimate partner**

Subscale	Gambler	Affected other
Emotional		
n	98	33
Range (min - max)	0 - 41	0 - 46
Mean (SD)	5.2 (9.3)	8.0 (12.2)
Median	1.0	2.0
Harassment		
n	98	34
Range (min - max)	0 - 12	0 - 8
Mean (SD)	1.0 (2.2)	1.6 (2.6)
Median	0.0	0.0

### Other reported aggressive behaviours between partners

After responding to the Revised Conflict Tactics Scale and the Composite Abuse Scale, participants were asked via an open-ended question<sup>28</sup> about any other aggressive behaviours that had not already been mentioned.

Two gambler participants gave examples of mutual ‘passive-aggressive’ behaviour such as silent treatment “She’s kept silent, ignoring me and I’ve not responded to her”. Other gamblers talked about infidelity and legal proceedings as forms of aggression their partner had engaged in “I think my husband got involved with another young girl to punish me”, “He wants to divorce me without giving me any property. He wants me to sign a paper but no lawyer agreed to be my witness because he treats me unfairly”. One gambler mentioned “lots of verbal abuse”.

Eight affected others gave examples mostly of verbal threats and warnings. For example, “He has abused the children verbally to win over me, and to control me”, “Gave me warning every day not to talk about his problem gambling to anyone including his parents, siblings and all others such as friends, neighbours, work peers and so on”, “He can become verbally aggressive. I can feel threatened about my daughter being taken away.” One affected other mentioned that her partner had shown violence towards animals “a lot of manipulation - that was his big thing. He used a lot of mind games”. Withdrawal of necessary care, support and protection was mentioned by three affected others. For example, “He kicks me out of his house and tells me to sleep in the garage”, “My husband expressed that he wants to go overseas for living, he will threaten to withdraw his financial support to the family”.

### 4.7.3 Relationship between gambling and intimate partner violence

#### Chronology

To try to ascertain the chronology of intimate partner violence in relation to gambling problems, participants were asked to nominate which of three statements was most accurate (problem gambling first, violence first or both at the same time). A fourth option was if participants were not sure which came first. The four statements are detailed in Table 49. *Due to small sample sizes, results in this subsection should be considered indicative rather than absolute.*

<sup>28</sup> Some of the quotations detailed were written verbatim by the researchers conducting the interviews and some relate to brief notes taken by the researchers.



### Victims of intimate partner violence

Almost half (49%) of the gamblers who had been victims of intimate partner violence thought that their gambling problems started before their partner became aggressive. Similarly, 39% of affected others thought that their partner's gambling problems came before the aggression. Smaller proportions thought that the aggression came before the problem gambling (16% gamblers, 17% affected others). However, whilst only 11% of gamblers thought that the gambling and aggression commenced at about the same time, almost one-third (30%) of affected others thought this was the case (Table 49).

**Table 49: Chronology of gambling problems and intimate partner violence reported by Phase II victims**

<b>Chronology</b>	<b>%</b>
<b>Gambler (n=37)</b>	
I think that my gambling problems started before my partner's aggressive behaviour	48.7
I think that my partner's aggressive behaviour started before my gambling problems	16.2
I think my gambling problems and my partner's aggressive behaviour started at about the same time	10.8
I'm not sure whether my gambling problems or my partner's aggressive behaviour started first	24.3
<b>Affected other (n=23)</b>	
I think that my partner's gambling problems started before my partner's aggressive behaviour	39.2
I think that my partner's aggressive behaviour started before his/her gambling problems	17.4
I think my partner's gambling problems and his/her aggressive behaviour started at about the same time	30.4
I'm not sure whether my partner's gambling problems or his/her aggressive behaviour started first	13.0

### Perpetrators of intimate partner violence

Perpetrators of intimate partner violence reported similar chronology to victims. About two-fifths (38%) of gambler perpetrators thought that their gambling problems started before their aggression, and half (50%) of affected others thought that their partner's gambling problems came before their aggression. Smaller proportions reported that the aggression came before the problem gambling (15% gamblers, 10% affected others). About one-quarter of gamblers and affected others (23% and 25% respectively) thought that the gambling and aggression commenced at about the same time (Table 50).

**Table 50: Chronology of gambling problems and intimate partner violence reported by Phase II perpetrators**

<b>Chronology</b>	<b>%</b>
<b>Gambler (n=40)</b>	
I think that my gambling problems started before my aggressive behaviour	37.5
I think that my aggressive behaviour started before my gambling problems	15.0
I think my gambling problems and my aggressive behaviour started at about the same time	22.5
I'm not sure whether my gambling problems or my aggressive behaviour started first	25.0
<b>Affected other (n=20)</b>	
I think that my partner's gambling problems started before my aggressive behaviour	50.0
I think that my aggressive behaviour started before my partner's gambling problems	10.0
I think my partner's gambling problems and my aggressive behaviour started at about the same time	25.0
I'm not sure whether my partner's gambling problems or my aggressive behaviour started first	15.0

## Relationship between problem gambling and intimate partner violence

Seventy-three percent (sample n=37) of gambler victims thought that their gambling and their partner's aggressive behaviour were related. Seventy-eight percent (sample n=40) of the gambler perpetrators thought that their own gambling and aggressive behaviour were related.

Eighty-seven percent (sample n=23) of affected other victims thought that their partner's gambling and his/her aggressive behaviour were related. All (100%, n=20) the affected other perpetrators thought that their partner's gambling and their own aggression were related.

Of the participants who thought that there was a relationship between the problem gambling and the intimate partner violence, generally a higher proportion of affected others (55% victims, 61% perpetrators) thought that the aggression was in response to the gambling, than gamblers (46% victims, 45% perpetrators). A higher proportion of gamblers (50% victims, 55% perpetrators) thought that either the gambling or aggression could be a response to each other, compared with affected others (35% victims, 33% affected others). Ten percent or less of gamblers and affected others thought that the gambling occurred in response to the aggressive behaviour (Table 51).

**Table 51: Relationship between gambling problems and intimate partner violence reported by Phase II victims and perpetrators**

Relationship	%
<b>Gambler victim (n=26)</b>	
Most often, my partner's aggressive behaviour occurs in response to my gambling	46.2
Most often, I gamble in response to my partner's aggressive behaviour	3.9
Sometimes my partner's aggressive behaviour occurs in response to my gambling and sometimes I gamble in response to my partner's aggressive behaviour	50.0
<b>Gambler perpetrator (n=31)</b>	
Most often, I behave aggressively in response to my gambling	45.2
Most often, my partner gambles in response to my aggressive behaviour	-
Sometimes I behave aggressively in response to my gambling and sometimes I gamble in response to my aggressive behaviour	54.8
<b>Affected other victim (n=20)</b>	
Most often, my partner's aggressive behaviour occurs in response to his/her gambling	55.0
Most often, my partner gambles in response to his/her aggressive behaviour	10.0
Sometimes my partner's aggressive behaviour occurs in response to his/her gambling and sometimes he/she gambles in response to his/her aggressive behaviour	35.0
<b>Affected other perpetrator (n=18)</b>	
Most often, I behave aggressively in response to my partner's gambling	61.1
Most often, my partner gambles in response to my aggressive behaviour	5.6
Sometimes I behave aggressively in response to my partner's gambling and sometimes he/she gambles in response to my aggressive behaviour	33.3

### Victims of intimate partner violence

Eleven gamblers gave further information<sup>29</sup> about the relationship between their gambling and being a victim of intimate partner violence. Six gamblers talked about their partner's anger and yelling when they found out about the gambling for the first time, or when they realised there was not enough money available to cover home expenses. Four gamblers mentioned gambling in response to their partner's aggression. For example, "My drinking, depression, tiredness, hopelessness, guilt and gambling all relate to his aggressive behaviour", and "I gambled more after my wife had shouted at me". One gambler mentioned that she had lied to her husband about her gambling and when he found out, he was very angry with her, which led her to gamble more.

Nine affected others elaborated on the relationship between their partner's gambling and being a victim of intimate partner violence. Most of these said that their partner became angry and frustrated with gambling losses, or when requests for funds for gambling were refused. For example, "When he gambles and gets frustrated and takes it out on us", and "When I refuse to give her money she gets aggressive". One affected other also said that they had criticised their partner's gambling and the violence had been in response to that criticism.

### Perpetrators of intimate partner violence

Five gamblers who perpetrated intimate partner violence talked about how gambling generally put them in a state of tension, and used this as a reason or excuse for violence. For example, "In general when in periods of gambling I'm more aggressive and wound up, less prepared to be calm. Things escalate faster", and "When I lost I was nothing, I don't know who to blame. I go home and start yelling and get angry at the kids, then I am lost and depressed". One gambler mentioned stealing money from her husband's wallet in order to gamble longer on electronic gaming machines.

Four affected others emphasised how upset they felt with their partner's gambling and frustrated with what seemed like an endless cycle. For example, "I was so upset when he lost money to gambling. So, I blamed him for his behaviour expecting him to change. Yet, he got more upset and then he went back to gamble without any apologies or words. So many times, we repeated this pattern of behaviours, I think, over 10 years". Another affected other participant described how her threatening and controlling behaviours were an effort to get her partner to stop gambling and were not as effective as she had hoped "My past experiences with problem gambling have caused me to over-react to my husband's gambling. I tried to strongly control his gambling behaviour earlier using threatening words, avoiding him, rejecting sex and so on. I know that it did not help him, rather it has contributed to him gambling more".

### **Factors involved in the relationship between gambling and aggressive behaviour**

Participants who thought that there was a relationship between the gambling and aggressive behaviour were asked which factors were involved. The most common factors were gambling-related financial problems and gambling-related trust problems. This was followed by 'not meeting family/whānau responsibilities because of gambling'. Depression or sadness, anger, and coping ability were mentioned by many of the participants who provided a response to this question. The least mentioned factors were alcohol and drug use (Table 52).

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<sup>29</sup> Some of the quotations detailed were written verbatim by the researchers conducting the interviews and some relate to brief notes taken by the researchers.

**Table 52: Factors involved in the relationship between gambling and aggression among Phase II participants by help-seeking status**

Factor <sup>#</sup>	Victim n		Perpetrator n	
	Gambler n=26	Affected other n=20	Gambler n=31	Affected other n=20
Gambling-related financial problems	23	19	28	18
Gambling-related trust problems	24	19	23	17
Not meeting family/whānau responsibilities because of gambling	18	19	20	17
Your depression or sadness	17	9	17	10
Your partner's depression or sadness	15	13	15	12
Your anger	18	11	22	15
Your partner's anger	19	14	17	14
Your ability to cope	19	12	18	10
Your partner's ability to cope	16	18	16	13
Your alcohol use	7	2	8	1
Your partner's alcohol use	6	6	6	5
Your drug use	3	-	2	-
Your partner's drug use	2	1	3	-
None of the above	1	-	2	1

<sup>#</sup> Participants could identify multiple impacts

#### **4.8 Phase II gamblers - Associations with intimate partner violence**

This section details associations with intimate partner violence (i.e. violence experienced or perpetrated between people in a current relationship either married or de facto, and living with or separately from partner)<sup>30</sup> for Phase II gamblers. Bivariate associations and multiple logistic regression analysis results have been presented. Section 4.8.1 details the associations with being a victim of intimate partner violence and section 4.8.2 details the associations with being a perpetrator of intimate partner violence.

##### **4.8.1 Associations with being a victim of intimate partner violence for gamblers**

###### **Bivariate associations**

Data are presented in Appendix 4.

Bivariate associations with being a victim of intimate partner violence, examined using logistic regression, identified several statistically significant variables, the majority of which were similar to those for being a victim of family/whānau violence. However, there were some differences. Broadly, the variables fit into categories of violence perpetration, employment status, family living arrangements, gambling behaviour, gambling impacts and co-existing issues.

<sup>30</sup> The financial abuse questions were included as variables in the model as they were worded differently from the other family violence questions.

*Due to some small sample sizes, indicated where confidence intervals are wide, odds ratios should be considered indicative rather than absolute.*

### Violence perpetration

Being a perpetrator of violence (excluding financial abuse) towards a partner or ex-partner was significantly associated with 23.8 times higher risk of being a victim of intimate partner violence than not perpetrating any violence. Additionally, physically hurting a partner/ex-partner (5.9 times higher), threatening to harm a partner/ex-partner (7.7 times higher), insulting or talking down to a partner/ex-partner (20.7 times higher), and screaming or cursing at a partner/ex-partner (31.9 times higher) were significantly associated with increased risk of being a victim, compared to not doing these things.

Similarly, being a perpetrator of any financial abuse was significantly associated with 7.7 times higher risk. Additionally, taking money from a partner/ex-partner's purse/wallet without permission (11.5 times higher) and taking money from a partner/ex-partner's bank account without permission (5.9 times higher) were associated with increased risk of being a victim, compared to not doing these things.

*However, due to the wide confidence intervals, all these findings should be treated as indicative rather than absolute.*

### Employment status

Participants who were unemployed or who were receiving an income benefit (including superannuation) were at *lower* risk of being a victim of intimate partner violence (0.2 and 0.5 times lower, respectively).

### Family living arrangements

Having a partner/spouse (whether living with them or not living with them), in comparison to being single, was significantly associated with about five times higher risk of being a victim of intimate partner violence. Similarly, being a solo parent was associated with 3.5 times higher risk.

Having one or more children less than 18 years of age living at home was associated with about twice the risk of being a victim than not having any children at home. If the eldest child showed borderline or abnormal emotional symptoms, a statistically significant higher risk of being a victim was noted (4.7 times higher) than having a child who scored as normal.

### Gambling behaviour

Participants who had problems with gambling for 7 to 12 years had almost four times higher risk of being a victim of intimate partner violence, than participants whose gambling problems were of two years or less duration.

### Gambling impacts

Participants with a Victorian Problem Gambling Family Impact Scale in the upper two quartiles (i.e. those who were experiencing the greatest negative effects from problem gambling) had 4.7 and

5.2 times higher risk of being a victim of intimate partner violence than participants in the lowest quartile.

### Co-existing issues

Participants with a high level of general psychological distress had 3.6 times the risk of being a victim than participants with a low level of psychological distress.

Participants who had a partner/ex-partner with a mental health issue in the prior 12 months had a significantly higher risk of being a victim of intimate partner violence (5.0 times higher) than participants who did not have a partner/ex-partner with mental health issues. Participants who had a partner/ex-partner with an alcohol issue in the prior 12 months also had a significantly higher risk of being a victim of intimate partner violence (22 times higher) than participants who did not have a partner/ex-partner with alcohol problems. *However, the confidence interval for the latter finding was very high indicating a very small sample size. Therefore, the risk level should be considered indicative only.*

Scoring in the second and fourth quartiles on the Buss-Perry Aggression Questionnaire anger subscale was associated with a significantly higher risk (3.0 and 6.4 times, respectively) of being a victim than scoring in the lowest quartile.

Scoring in the fourth quartile of the limited access to emotional regulation strategies subscale of the Difficulties in Emotion Regulation Scale was associated with 4.6 times the risk of being a victim compared with scoring in the lowest quartile.

Scoring in the upper two quartiles of the anxiety subscale, and in the upper quartile of the depression, somatic symptoms and inadequacy symptoms subscales of the Symptom Rating Test were associated with higher risk of being a victim of intimate partner violence (ranging from 3.3 to 7.4 times higher) than scoring in the lowest quartile of these subscales.

### **Multiple logistic regression**

Multiple logistic regression analyses showed that being unemployed remained statistically significantly associated with about a fifth of the risk (0.2 times lower) for being a victim of intimate partner violence, compared with being employed. *However, the confidence interval was very wide indicating a very small sample size, so this risk value should be considered indicative rather than absolute.*

Having a partner/spouse (whether living with them or not living with them), in comparison to being single, remained statistically significantly associated with about six times higher risk of being a victim of intimate partner violence, than being single. *However, the confidence intervals were wide indicating small sample sizes, so this risk value should be considered indicative rather than absolute.*

Participants with a Victorian Problem Gambling Family Impact Scale in the upper two quartiles (i.e. those who were experiencing the greatest negative effects from problem gambling) remained at higher risk for being a victim (5.4 and 6.3 times higher respectively), compared with participants in the lowest quartile. *However, the confidence intervals were wide indicating small sample sizes, so this risk value should be considered indicative rather than absolute.*

The only other finding which remained statistically significantly associated with being a victim of intimate partner violence in the multiple logistic regression analyses was for participants who had a partner or ex-partner with an alcohol issue in the prior 12 months; this was 26.6 times higher than for

participants whose partner did not have a problem with alcohol. *However, the sample size was extremely small (evidenced by the very large confidence intervals), thus this finding should be considered indicative only.*

Data are presented in Table 53.

**Table 53: Phase II gamblers multiple logistic regression for being a victim of intimate partner violence**

Variable	Odds Ratio	(95% CI)	p-value
<b>Employment status</b>			
Employed	1.00		
Unemployed	0.18	(0.04, 0.74)	
Student/retired/homemaker/not looking for work	3.26	(0.90, 11.78)	0.007
<b>Relationship status</b>			
Single	1.00		
Not living with partner/spouse	6.10	(1.62, 22.94)	
Living with partner/spouse	5.83	(1.91, 17.76)	0.005
<b>Victorian Problem Gambling Family Impact score (quartiles)</b>			
18 or less	1.00		
19 - 31.5	0.95	(0.21, 4.21)	
31.6 - 45	5.37	(1.51, 19.13)	
46 or more	6.31	(1.74, 22.93)	0.003
<b>Alcohol issue in partner/ex-partner in past 12 months</b>			
No	1.00		
Yes	26.56	(2.22, 318.09)	0.01

#### 4.8.2 Associations with intimate partner violence perpetration by gamblers

##### Bivariate associations

Data are presented in Appendix 5.

Bivariate associations with intimate partner violence perpetration examined using logistic regression identified several statistically significant variables. These were similar to those identified for associations with family/whānau violence perpetration, with a few differences, and broadly fit into categories of being a victim of violence or perpetrator of financial abuse, family living arrangements, gambling behaviour, gambling impacts, co-existing issues and the initial type of counselling sought (telephone or face-to-face).

*Due to some small sample sizes, indicated where confidence intervals are wide, odds ratios should be considered indicative rather than absolute.*

##### Being a victim of intimate partner violence or a perpetrator of financial abuse

Being a victim of intimate partner violence (excluding financial abuse) was significantly associated with 23.8 times higher risk of being a perpetrator of violence towards a partner/ex-partner, compared with not being a victim of violence. Additionally, being a victim of insults or being talked down to by

a partner/ex-partner, and being screamed or cursed at were significantly associated with increased risk of being a perpetrator (19.8 and 24.7 times higher, respectively), compared to not being a victim of those types of violence.

Similarly, being a perpetrator of any financial abuse to a partner/ex-partner was significantly associated with 7.3 times higher risk. Additionally, taking money from a partner's/ex-partner's purse/wallet without permission (6.3 times higher) and taking money from a bank account without permission (6.9 times higher) were associated with increased risk of perpetrating intimate partner violence, compared to not doing these things.

### Family living arrangements

A level of statistical significance was attained for living arrangements of various combinations of family members vs. living alone (or in a group or shared household) with the risk for perpetrating intimate partner violence ranging from nearly four times higher to more than six times higher.

Having children less than 18 years of age living at home was also associated, with 2.5 times higher risk of perpetrating intimate partner violence than not having any children at home. The risk was associated with having more than one child at home (3.5 times higher), in comparison with not having any children at home. Participants had a higher risk of perpetrating intimate partner violence if their eldest child scored as borderline or abnormal for emotional symptoms (14.1 times higher), hyperactivity (4.2 times higher), conduct problems (5.2 times higher) and peer problems (3.7 times higher), than if the child showed normal behaviour. Similarly, if the total Strengths and Difficulties Questionnaire score for the eldest child was in the borderline or abnormal range, there was a significant association with the participant being a perpetrator (4.5 times higher) compared to having an eldest child with a normal total score.

### Gambling behaviour

Participants who had self-excluded themselves from gambling venues in the previous 12 months had a statistically significant *lower* risk (0.4 times lower) of being a perpetrator of intimate partner violence compared with participants who had not self-excluded from venues. Participants who were not currently self-excluded, but who had been in the past, had a 0.3 times lower risk; *however, the confidence intervals for this group of participants spanned 1, so this finding could be an artefact of a very small sample size.*

Although a level of statistical significance ( $p=0.05$ ) was attained for average time spent gambling per week before starting counselling, all the confidence intervals spanned 1. This finding is likely to be an artefact of confounding factors and some small sample sizes.

### Gambling impacts

Participants with a Victorian Problem Gambling Family Impact Scale in the upper two quartiles (i.e. those who were experiencing the greatest negative effects from problem gambling) had 3.7 and 5.7 times higher risk respectively of perpetrating intimate partner violence than participants in the lowest quartile.



### Co-existing issues

Participants who had a partner or ex-partner with an alcohol or a drug issue in the prior 12 months had a significantly higher risk of perpetrating intimate partner violence (6.1 and 9.0 times higher respectively) than participants who did not have a partner or ex-partner with alcohol or drug problems.

Scoring in the fourth quartile on the Buss-Perry Aggression Questionnaire anger subscale was associated with a significantly higher risk (9.3 times) of being a perpetrator than scoring in the lowest quartile.

Scoring in the second and fourth quartiles of the limited access to emotional regulation strategies subscale of the Difficulties in Emotion Regulation Scale was associated with 3.9 and 6.7 times the risk respectively, for being a perpetrator compared with scoring in the lowest quartile. A similarly increased risk was noted for participants in the upper three quartiles of the difficulties controlling impulses subscale (3.8 to 9.7 times higher, increasing with quartile).

Scoring in the upper two quartiles of the anxiety subscale, and the fourth quartile of the depression, inadequacy symptoms, and somatic symptoms subscales of the Symptom Rating Test were associated with higher risk of being a perpetrator of intimate partner violence (ranging from 3.5 to 5.2 times higher) than scoring in the lowest quartile of these subscales.

Scoring in the second and fourth quartiles of the tangible subscale of the Interpersonal Support Evaluation List (i.e. perceiving greater availability of material aid) than in the lowest quartile, was associated with a statistically significant *lower* risk of perpetrating intimate partner violence (0.2 times lower). Participants who scored in the third quartile also had a lower risk (0.5 times); however, the confidence intervals for this group of participants spanned 1, so this finding could be an artefact of a small sample size.

### Initial type of counselling sought

Participants who sought face-to-face counselling for their gambling were at almost four times higher risk of perpetrating intimate partner violence than participants who sought help from a telephone service.

### **Multiple logistic regression**

Multiple logistic regression analyses showed that living as a couple (with or without children), in comparison to being single (or in a group or shared household), remained statistically significantly associated with higher risk of perpetrating intimate partner violence (7.6 times higher with children, 12.0 times higher without children). *However, the confidence intervals were wide indicating small sample sizes, so these risk values should be considered indicative rather than absolute.*

If the eldest child was in the borderline or abnormal range for hyperactivity, compared to being in the normal range, a higher risk of perpetrating intimate partner violence remained in the multiple logistic regression analyses (33.2 times higher). *However, due to small sample sizes, the confidence intervals are very wide meaning that the risk level should be considered indicative rather than absolute.*

Participants who had self-excluded themselves from gambling venues in the previous 12 months continued to have a statistically significant *lower* risk (0.1 times lower) of being a perpetrator of intimate partner violence compared with participants who had not self-excluded from venues. Participants who were not currently self-excluded, but who had been in the past, also continued to have a 0.1 times lower

risk; however, again the confidence intervals for this group of participants spanned 1, which is likely to be due to the small sample size.

In comparison with participants who had a gambling problem for 7 to 12 years, participants whose gambling had caused problems for 3 to 6 years, or for 13 or more years had a *lower* risk for perpetrating intimate partner violence (0.1 and 0.2 times lower, respectively). This finding just failed to attain a level of statistical significance in the bivariate association analyses ( $p=0.07$ ). *However, the confidence intervals were wide indicating small sample sizes, so these risk values should be considered indicative rather than absolute.*

Several co-existing issues continued to be statistically significantly associated with perpetration of intimate partner violence, in the multiple logistic regression analyses. Participants who had a partner or ex-partner who had a drug issue in the prior 12 months had a 36 times higher risk for perpetrating violence than participants whose partner or ex-partner had not had a drug issue. *However, due to very small sample sizes, the confidence intervals are very wide so the risk level should be considered indicative rather than absolute.*

Scoring in the upper three quartiles of the difficulties controlling impulses subscale of the Difficulties in Emotion Regulation Scale remained associated with 9.4 to 19.8 times the risk of being a perpetrator compared with scoring in the lowest quartile. *Again, due to small sample sizes, the confidence intervals are very wide and the finding should be considered with caution.*

Scoring in the second and fourth quartiles of the tangible subscale of the Interpersonal Support Evaluation List (i.e. perceiving greater availability of material aid) than in the lowest quartile, remained associated with a statistically significant *lower* risk of perpetrating intimate partner violence (0.1 and 0.2 times lower, respectively). *However, the confidence intervals were wide indicating small sample sizes, so these risk values should be considered indicative rather than absolute.*

Data are presented in Table 54.

**Table 54: Phase II gamblers multiple logistic regression for being a perpetrator of intimate partner violence**

<b>Variable</b>	<b>Odds Ratio</b>	<b>(95% CI)</b>	<b>p-value</b>
<b>Living arrangements</b>			
Single person/other/group or shared household	1.00		
Couple with children	7.58	(1.85, 30.99)	
Couple without children	12.03	(2.29, 63.28)	
One parent family	0.66	(0.08, 5.41)	0.006
<b>Strengths and Difficulties Questionnaire - Hyperactivity</b>			
Normal	1.00		
Borderline or abnormal	33.21	(3.67, 300.75)	0.002
<b>Self-excluded from venues in past 12 months</b>			
No	1.00		
Yes, but not now	0.09	(0.01, 1.50)	
Yes, currently	0.08	(0.02, 0.31)	0.001
<b>Length of gambling problems (quartiles)</b>			
2 years or less	0.30	(0.07, 1.30)	
3 - 6 years	0.12	(0.02, 0.58)	
7 - 12 years	1.00		
13 years or more	0.15	(0.03, 0.82)	0.04
<b>Drug issue in partner/ex-partner in past 12 months</b>			
No	1.00		
Yes	36.15	(3.57, 365.82)	0.002
<b>Impulse score (Difficulties in Emotion Regulation Scale) (quartiles)</b>			
7 or less	1.00		
8 - 11	9.45	(1.39, 64.11)	
12 - 16	19.76	(2.56, 152.81)	
17 or more	14.88	(1.88, 118.04)	0.03
<b>Tangible social support score (Interpersonal Support Evaluation List) (quartiles)</b>			
6 or less	1.00		
7 - 9	0.05	(0.01, 0.33)	
10 - 11	0.72	(0.16, 3.26)	
12 or more	0.18	(0.05, 0.74)	0.005

The main aim of the present research was to investigate the links between problem gambling and family/whānau violence in a population of people seeking professional help for their own gambling or because of someone else's gambling. Anecdotally, problem gambling and family/whānau violence have been reported by problem gambling treatment providers to be highly co-existing. However, there is limited published evidence for the co-existence of the two phenomena and no robust research pertaining to the New Zealand context with its socially and ethnically diverse population. In this study, family/whānau violence covered not only physical violence and coercive control (most often thought of as violence), but also psychological and emotional violence (more often thought of as conflict) and financial abuse. Although this is very broad and not totally conventional, the purpose of this study was to identify the level of these issues in a problem gambling help-seeking population and to increase our knowledge of these issues. There was a focus on differentiating between gamblers and affected others in relation to perpetrating, or being victims of, family/whānau violence rather than gender-based analyses, which are the more traditional analyses conducted in family violence studies. Based on the available published and anecdotal evidence, we hypothesised that there would be substantial family/whānau violence co-existing with problem gambling along with other comorbid issues many of which would be significantly associated with family/whānau violence.

The study was conducted in two phases, comprising screening (Phase I) followed by a detailed questionnaire (Phase II). Participants were recruited from new clients, and clients who had been in counselling for less than three months, at three national problem gambling treatment services, and included gamblers and people affected by someone else's gambling (affected others). Participants self-selected into both phases, that is to say, it was a convenience sample with clients self-selecting into Phase I and then deciding whether they wished to continue into Phase II. This could have introduced some level of bias into the results, as clients who had not experienced any violence (either as victims or perpetrators) might have been less motivated to take part in a study on family/whānau violence and gambling (i.e. they may have thought it irrelevant to them) than people who had experienced violence. Additionally, perpetrators and victims of more severe forms of physical and sexual violence may have been less motivated to take part for fear of negative consequences of disclosure.

Another limitation of this study is that family/whānau violence was assessed using a screening tool (the HITS scale) and violence was deemed to be present without consideration of the frequency of occurrence (e.g. it could have occurred only once or frequently in the prior 12 months). Taken together, these limitations could have led to some overestimation of minor violence and an underestimation of more severe forms of violence, and this should be considered when reading the rest of this discussion. A further limitation is that only violent/abusive behaviour is captured using the HITS scale, to the exclusion of the effects of the behaviour such as fear and intimidation. Behavioural effects of violence give a perpetrator power and control over the life of the victim; something which is a major part of sustained coordinated violence (Adams, 2008).

The study sample was generally similar to the client profile accessing face-to-face problem gambling treatment services (Ministry of Health, 2016) with a couple of differences. The study included slightly more gamblers than affected others compared to the general treatment-seeking population, and over-sampled Asian people, which led to a proportional decrease in the other ethnicities. It may also have slightly over-sampled females. The study findings, therefore, are not completely representative of the problem gambling treatment-seeking population, but are similar enough to provide a good indication of the extent and consequences of family/whānau violence co-occurrence.

There were generally similar levels of co-existing issues between gambler and affected other participants. These included risky alcohol and drug use, tobacco smoking, and general psychological distress. These co-existing issues may have influenced the occurrence of family/whānau violence, and were considered in the examination of risk and protective factors (presented later in this chapter).

Generally, gamblers and affected others reported low levels of anger and hostility, good control over emotions and low levels of general distress.

As expected, a majority of the gambler participants were either problem gamblers (75%) or moderate-risk gamblers (12%) and a majority of the affected others were non-gamblers/non-problem gamblers (68%). However, a substantial minority of affected others were categorised as problem gamblers (16%) or moderate-risk gamblers (10%) in their own right; nonetheless, they were seeking help because of someone else's gambling not because of their own gambling. Similar, a minority of gambler participants were categorised as low-risk (7%) or non-problem gamblers (6%) despite accessing a treatment service for help with their gambling. This shows that relationships between problem gambling and family/whānau violence can be complicated due to multiple sources and levels of gambling harm within a family unit.

The four most reported problematic gambling activities were pub electronic gaming machines (EGMs), casino table games, casino EGMs, and horse or dog race betting. Although not directly comparable, this was commensurate with the most cited primary modes of problem gambling reported by clients accessing problem gambling treatment services (Ministry of Health, 2016). Generally, the problematic gambling had been occurring for some time (median six years, three sessions or eight hours per week) with a relatively high median weekly expenditure of \$300. Slightly less than half of the gamblers had self-excluded from gambling venues and slightly more than one-fifth were currently or had previously received counselling at the time of recruitment into the study. These findings indicate that the participants in the study were either directly (gamblers) or indirectly (affected others) experiencing high levels of problematic gambling and ensuing harms at the time of their participation in the study.

### **Effects of gambling and coping behaviours of family/whānau**

The reported effects of the problematic gambling behaviours were wide and varied, but generally fit into the categories of negative consequences directly to individual family and whānau members (e.g. relationship disharmony, health effects), on home life (e.g. financial deprivation, negative emotions) and specific effects on children (e.g. social deprivation, physical neglect). This corroborates prior studies that have identified multiple negative effects of a gambler's gambling on their close relatives and wider community (see Kourgiantakis et al., 2013 for a review). However, in the current study, gamblers appeared to under-estimate the effect of their behaviour on family/whānau members. This is an important finding that needs to be replicated using larger more representative samples and ideally with partner pairs of gamblers and affected others. In the present research, the gambler and affected other participants were not necessarily related and some of the gambler participants may not have had close family/whānau relationships, whilst all of the affected other participants had at least one close family relationship (i.e. the gambler about whom they were seeking help). Typically, research has focused on gamblers rather than affected others, which means there is limited understanding of the severity of negative gambling impacts on affected others (see Kalischuk et al., 2006 for a review). Despite the limitations of the present study, this finding could have implications for the provision of family social or aid services to affected others (i.e. families and whānau) of problem gamblers, though further, more robust, research is advised.

Half of the gamblers reported that their gambling did not negatively affect their children because the children were unaware of the gambling problem. Again, this could be an under-estimation of the effects of their gambling behaviour as children often are aware of family tensions even if the adults think that they are not (Mullender et al., 2002). Overall, in the current study, based on participants' responses to the Strengths and Difficulties Questionnaire, the eldest children's behaviour fit within normal ranges; however, some children exhibited abnormal behaviour, which may or may not have been associated with the gambler's behaviour. Longitudinal research studies will be necessary to assess effects on children's development when they live in a household with a problem gambler.

Similar to findings noted by Krishnan and Orford (2002), family/whānau members reported a wide range of behaviours and strategies to cope with the gambler's behaviours. These included actively confronting the gambler (engaged coping), accepting or resigning to the gambler's behaviour (tolerant coping) and reducing contact or interactions with the gambler (withdrawal coping). Other behaviours included taking control of family finances, or supporting and encouraging the gambler to change behaviour. Further studies are required to ascertain which coping behaviours are most effective for family/whānau and which could then be incorporated into counselling or other treatment programmes for affected others of problem gamblers.

## **Frequency of violence**

### Frequency of family/whānau violence

Violence in this study included being perpetrators or victims of physical, verbal, emotional and sexual abuse. Financial abuse was also assessed. Violence to/from the family/whānau (immediate and extended family members) and intimate partner violence (current and ex-partners) were both examined. Whilst intimate partner violence occurs as part of family violence and is included in the discussion below, it is also specifically referred to separately.

Family/whānau violence was prevalent in the study population with half (50%) of the Phase I participants reporting being victims of family/whānau violence in the prior 12 months and almost half (44%) reporting perpetrating violence. The majority of the violence was verbal abuse ('screamed or cursed at' and 'insulted or talked down to') with about one-third to two-fifths of victims and perpetrators respectively, reporting these. Physical harm and threats of harm both occurred less often (around 10%). Four percent of the participants reported being victims of sexual abuse whilst none reported perpetrating it. As mentioned previously, the lower levels reported for physical and sexual violence might be due to under-reporting, particularly in relation to perpetration.

In Phase II, a higher proportion of participants reported being victims or perpetrators of family/whānau violence than in Phase I. The discrepancy between the phases was probably due to several factors. First, Phase I participants self-selected to continue into Phase II and those experiencing violence may have been more likely to continue in the study than people who did not experience violence. Second, financial abuse questions were included in the violence questions in Phase II but had been omitted in Phase I to reduce respondent burden. Third, some Phase II participants may have felt more comfortable reporting family/whānau violence on the second occasion rather than on the first occasion; for example, 45% of affected other participants who did not report being victims in Phase I proceeded to report being victims in Phase II. If the latter theory is the case, this suggests that other studies examining family/whānau violence, where participants are only interviewed on one occasion, may report very conservative estimates of violence occurrence. A further explanation for the discrepancy in reporting of family violence between the phases is that in Phase I, participants were asked questions face-to-face by their gambling counsellor, whereas in Phase II the questions were asked by a researcher via telephone. Participants may have felt more comfortable responding to sensitive questions to an unknown person (a researcher) who could not see them, compared with their counsellor with whom they were just building rapport and whom they may have perceived as being responsible for helping solely with gambling issues. Notwithstanding these discrepancies, the occurrence of family/whānau violence (using our broad definition of violence including physical violence, and verbal and financial abuse) was high in this help-seeking population and whilst it may not be a wholly accurate reflection of the frequency of violence amongst people affected by problem gambling, it confirms the limited prior research on violence amongst gambling populations (e.g. Dowling, Jackson et al., 2014; Suomi et al., 2013).

Higher proportions of affected others reported family/whānau violence, both as victims and as perpetrators, compared with gamblers. This is interesting because logically, one would assume that if affected others were more likely to be victims of family/whānau violence, then gamblers must be more likely to perpetrate the violence. This is perhaps another limitation of this study in that the affected other participants were not necessarily related to the gambler participants, meaning that data from different samples of affected others and gamblers were used in this study. It could, however, indicate that affected others in this study were more likely to report the existence of family violence, possibly because they experienced less shame and stigma than the gambler sample. There are other possible explanations too. The findings may be an artefact of the smaller sample of affected others, or the higher proportion of females to males in the affected other sample may have skewed the results. However, this finding supports the results of the Australian research, which indicated the occurrence of reciprocal violence in problem gambling households (Dowling, Jackson et al., 2014). It could also be that the participants in this study are more likely to be reporting on “situational couple violence” where there is mutual violence fuelled, for example, by anger, which was mentioned by some participants in response to open-ended questions in this study. This is in contrast to “intimate terrorism” as described by Johnson, Leone and Xu (2014), which is more likely to be perpetrated by men and involves the deliberate infliction of violence and abuse by one partner onto the other and uses coercive control.

It is of note that financial abuse reported in this study followed a more logical pattern, with a higher proportion of gamblers being perpetrators and a higher percentage of affected others reporting being victims. This finding is to be expected because problem gamblers are more likely to require additional money to fund their gambling, and as family/whānau members are likely to be the easiest, more accessible, people from whom to obtain those funds. However, in the present study, 18% of gambler participants reported that they do not manage their own money and 11% of gamblers reported being concerned about their money, valuables or property going missing. A strategy for controlling gambling behaviour that is often used by gamblers or recommended to gamblers by counsellors, is for financial control to be given to a trusted other person. Based on the results of the present study, this could lead to a potential unintended consequence of gamblers handing over control of their finances to another person, who then has the opportunity to perpetrate financial abuse against the gambler.

Participants could report multiple family/whānau members in relation to the violence experienced or perpetrated. Three-quarters of Phase I participants reported that the family/whānau violence was to/from a current or ex-partner (i.e. it was intimate partner violence), though it was evident that several family/whānau members were involved in the violent behaviour for some participants. This finding is contrary to that reported by Dowling and Jackson et al. (2014) who found in their study of family violence amongst help-seeking populations in Australia, that gamblers most commonly endorsed parents as perpetrators and victims of family violence, followed by current and ex-partners. Methodological differences in the way the family violence questions were worded, or in the sample make-up could be a reason for this disparity between study findings.

### Ethnic differences in occurrence of family/whānau violence

When examined by ethnicity, there were some notable differences in the occurrence of family/whānau violence for the various populations. However, especially when investigating data for gamblers and affected others separately, by ethnicity, sample sizes were generally very small. This means that these findings should only be considered to be indicative and need to be replicated in studies with larger samples before definitive conclusions can be made.

Albeit at a lower level than verbal abuse, Māori appeared more likely to be victims of physical violence and sexual abuse than participants in the other ethnicities. Together with Pacific participants, they also appeared more likely to be perpetrators of physical violence than Asian or European/Other participants. Generally, the frequency of perpetrating or being victims of verbal abuse (insulting, screaming or

cursing behaviour) appeared to be less for Asian participants than for participants of the other ethnicities. As with the overall data, about three-quarters (73% to 83%) of the reported violence for each ethnicity was to/from a current or ex-partner. The exception to this was for Asian participants who perpetrated family/whānau violence, where 93% was to an intimate partner.

These findings for the different ethnicities are expected based on prior research, which has identified that Māori are at higher risk of being victims and perpetrators of intimate partner violence than non-Māori (e.g. Family Violence Death Review Committee, 2014; Fanslow et al., 2010; Koziol-McLain et al., 2010; Marie et al., 2008; Morris et al., 2003;). Previous research with Pacific people has provided inconsistent results in relation to family violence but our finding of a high occurrence of perpetration of physical violence corroborates, to some extent, the finding from the Pacific Islands Families Study that Pacific mothers appeared to experience higher intimate partner violence levels than other partnered females (Schluter et al., 2007). Studies on family violence in Asian communities in New Zealand is very limited, and could be due to various factors including a cultural tendency to keep family issues private. This could explain why Asian people in the present study appeared to have a lower occurrence of verbal violence than the other ethnicities.

However, although Māori and Pacific people appeared to be at higher risk of certain types of violence and abuse, it is important to note that ethnicity was not associated with being a victim or perpetrator of family/whānau violence in the multiple logistic regression analyses, which controlled for other socio-demographic and co-existing factors. This indicates that ethnicity, per se, is not a risk factor but rather it is the association of ethnicity with other factors that means that certain populations are at higher risk for committing or experiencing family/whānau violence.

#### Frequency of intimate partner violence

Similar to the overall family/whānau violence findings, a higher proportion of affected others reported being victims or perpetrators of intimate partner violence than gamblers. This is expected as about three-quarters of the overall family/whānau violence was reported to be to/from a current or ex-partner. The median length of the violent behaviour (being a victim or perpetrator) was approximately three years, slightly more for gambler victims where it was five years. As for overall family/whānau violence, the majority of intimate partner violence was verbal abuse.

#### **Perceived relationship between gambling and family/whānau violence**

Overall, the single largest proportion (about half) of affected others (both perpetrators and victims) reported that they perceived the violence to be a response to the gambling behaviour. A lower percentage of gamblers reported this perception (one-fifth victims, one-third perpetrators). Only a minority of participants felt that the violence preceded the gambling (11% or less). For gambler participants, overall the largest proportion (about half) reported either a mutual relationship between gambling and violence (each can lead to the other) or no relationship; the proportion for affected others was slightly lower (about two-fifths). Causality relationships are difficult to ascertain in cross-sectional studies and relying on self-reported recollections and perceptions is not without its limitations. However, the current findings indicate that affected others were more likely to consider a direct link between family/whānau violence and problem gambling, with the violence being a consequence of the gambling behaviours. Gamblers, however, appeared more likely to be neutral, perceiving either no link or a two-way causal relationship. This suggests that gamblers and affected others view the two behaviours through different lenses.

Affected other victims may be reflecting on the abuse they received and rationalising it by attributing it to a negative behaviour, such as problem gambling; whilst affected other perpetrators could be using



the gambling as a justification for their violent behaviour. Data collected from open-ended questions identified numerous individual responses to the questions on the chronology of gambling and family/whānau violence. Many affected other victims reported gambling losses or lack of sleep putting the gambler in a bad mood, which then lead to the violent behaviour, whilst perpetrators reported being angry and frustrated with the gambler leading to their violent behaviour.

In contrast, gamblers may be justifying their behaviour by victim blaming (e.g. reporting mutual lack of respect and trust between family/whānau members, family member has always been violent), or may be in denial about, under-estimating or minimising the consequences and effects of their gambling and other behaviours. Victim blaming and denial are common, particularly amongst male violence perpetrators, to explain their behaviour (Henning & Holdford, 2006; Lila, Gracia & Murgui, 2013). Denial was not mentioned in the open-ended question responses but was not likely to be as, by definition, it relates to hiding the truth about one's behaviours from one's self. Under-estimation or minimising of the consequences of gambling was noted in this study in relation to the impacts on family/whānau, as described earlier in this chapter.

The only certainty from these findings is that the relationship between family/whānau violence and problem gambling can be the cause or effect of each other, thus corroborating the findings of Vander Bilt et al. (2003) and more recently the findings of Dowling et al. (2014).

## **Risk and protective factors associated with family/whānau and intimate partner violence**

### Risk and protective factors for being a victim of family/whānau and/or intimate partner violence

Confirming that there is a relationship between problem gambling and violence, multiple logistic regression analyses showed that gamblers who experienced more negative effects from problem gambling had a higher risk of being victims of both family/whānau violence and intimate partner violence, in comparison with gamblers who experienced the least negative effects.

A risk factor for being a victim of family/whānau violence was having a child/children younger than 18 years of age living at home. This might be due to increased financial pressure on the parents in regard to the costs of raising a child (e.g. food, clothing, medical expenses) when there is a problem gambler in the family with likely financial difficulties and increased tensions. Alternatively, it could be related to loss of traditional family roles due to problem gambling leading to negative consequences, as speculated by Abbott (2001) in relation to female roles in the family as caregivers and nurturers. Similarly Morrison and Wilson (2015), in their qualitative study of Indigenous women's gambling, reported that Māori women use gambling to escape from the mundane drudgery of their family lives including the care of children and grandchildren, but when the gambling becomes problematic this can lead to violence within the home. Further research is required to investigate and understand this finding.

As would be expected, being partnered (whether living with the partner or not) was associated with a higher risk of being a victim of intimate partner violence than being single. This is, of course, logical as a person cannot be in a violent relationship with a current or ex-partner, if the person does not have such a relationship.

For gamblers, a protective factor against being a victim of intimate partner violence was being unemployed (excluding student/retired/homemaker/not looking for work), compared to being employed, although this finding should be treated with caution due to the small sample size. This finding appears to contradict that of Dowling, Suomi et al. (2014) who identified from their meta-analysis of research into problem gambling and intimate partner violence that less than full employment seemed to indicate a relationship between problem gambling and the violence. This suggests complexity in the association between the two behaviours, which could be affected by a multitude of

factors including problem gambling severity, level of financial difficulties, family cohesion and gender roles. It should be remembered that the current study focuses on a specific population of people who accessed gambling treatment services, and who were receiving (or who had recently received) counselling. They may not be representative of people in the general population who are directly, or indirectly, experiencing negative effects from gambling, and who have not accessed treatment services for gambling. The finding may also indicate differences between different types of unemployment (the general unemployed population and those unemployed who are not a student/retired/homemaker or not actively looking for work). Additionally, the severity and frequency of the violence was not measured in the current study, which may also have affected the results, compared to other studies.

### Risk and protective factors for perpetrating family/whānau and intimate partner violence

Having an eldest child with borderline or abnormal behaviour was a risk factor for perpetrating family/whānau violence, although this finding should be considered cautiously due to the wide confidence interval. Similarly, gamblers who had a family or whānau member with a mental health issue during the prior year were also at higher risk of perpetrating violence. A potential reason for both of these risk factors could be the increased stress and tension caused by having to live with, look after, and interact on a daily basis, with people who have special or increased needs; this would constitute situational violence although would not be an explanation for patterned, gender-based coercive controlling violence.

Living as a couple (with or without children) was associated with a higher risk of perpetrating intimate partner violence than not living as a couple, although this finding should be considered cautiously due to small sample size. This ties in with the finding of being a victim of intimate partner violence but is different from that scenario where either living with, or not living with, the partner were associated with a higher risk. For perpetration, the risk was higher with cohabitation.

Two protective factors for family/whānau violence were found in the multiple logistic regression analyses. Being an ex-smoker was a protective factor. The reasons for this finding are not apparent from the current study and require further investigation; they may be an artefact of small sample size. The second protective factor (also treated with caution due to a wide confidence interval) was having limited access to emotion regulation strategies (score 16 to 22) compared with having good access (score of 10 or less), although scoring more than 22 was not statistically significant. Again, this finding may be an artefact of small sample size as it appears counter-intuitive that having less ability to regulate emotions would lead to protection from family/whānau violence.

Protective factors for intimate partner violence included being self-excluded from gambling venues, and perceiving a greater availability of material aid from social supports; however, these findings should be considered with caution due to small sample sizes. The former factor relates to positive action taken by a gambler to control or stop negative gambling behaviours, and the latter to additional support from others, which could mitigate the harmful effects from excessive gambling. Both of these actions could lead to reduced stress or tension in a couples-relationship, which in turn, could mean there is less anger and aggression and thus less likelihood of violent behaviour to release that stress or tension.

Participants who had gambling problems for a moderate length of time (three to six years) or long time (13 years or more) also had a lower risk of perpetrating intimate partner violence than those who had a gambling problem for 7 to 12 years. This is an interesting finding, which requires further investigation to understand; it may be an artefact of small sample size.

## Conclusion

This study has shown that the co-occurrence of problem gambling and family/whānau violence is common in a population seeking help due to their own or someone else's gambling. Half (50%) of the participants reported being victims of family/whānau violence and 44% reported being perpetrators. Types of violence were broad and ranged from verbal to physical to sexual and financial abuse. The most common type of violence reported was verbal abuse (screaming, cursing, insulting or talking down to a person) and occurred between intimate partners (i.e. with current or ex-partners). Generally, gamblers appeared to under-estimate the effect of their gambling behaviour on family/whānau members, who used a range of behaviours to cope with the other person's gambling. Several risk factors were identified with perpetrating or being a victim of family/whānau violence and included negative impacts from problem gambling, having children at home, and having family/whānau members with a mental health issue.

Whilst this study has several limitations, two main points are clear. First, it is possible and simple to screen for family violence in problem gambling help-seeking populations using a binary response (Yes/No) format to the HITS scale. In this study, researchers developed the screening questionnaire, which included the HITS scale and discussed its use with counsellors in the participating treatment services. However, as previously mentioned, use of the HITS scale in this way may give false negatives for people who feel uncomfortable revealing family/whānau violence when first asked, and also does not provide a measure of frequency or severity of the violence. The second point of note is that family/whānau violence is prevalent in gambling help-seeking populations at a level that warrants further attention. This study has identified that inter-relationships exist between problem gambling and family/whānau violence, albeit that further research is required to answer some of the questions that have arisen.

The occurrence of family/whānau violence, particularly between partners, and the associated risk factors suggest that a coordinated approach between different health and social service sectors could potentially mean identification of family/whānau violence at an earlier stage. This in turn could lead to early intervention and prevention of more serious physical and mental harms from prolonged violence. At a minimum, we recommend that problem gambling treatment services should routinely screen for family/whānau violence and facilitate clients, as necessary, to relevant family violence services for assistance. Conversely, family violence services may also wish to consider screening for problem gambling, particularly for clients who remain in the home environment. Similarly, other healthcare services that routinely screen for either family violence or problem gambling could do both. Since greater negative effects from problem gambling were associated with increased family/whānau violence, it would make sense to screen for problem gambling because if gambling behaviour were to be addressed, the potential for family/whānau violence could decrease. Given the higher occurrence of family/whānau violence for Māori, it is also very important that culturally tailored problem gambling and family violence interventions based on whānau ora should be developed and implemented. Finally, given the clear indication of links between family/whānau violence and problem gambling, it would seem prudent for police to add problem gambling to the list of 'red flag' risk factors checked when dealing with violence cases. Currently, alcohol and drug problems and mental health issues are investigated, amongst violence history and access to people and weapons, but problem gambling is not featured (Brown, 2011, pp.55-56). Identification and treatment of problem gambling issues, as previously mentioned, could lead to a reduction in family/whānau violence.

However, before establishing these early intervention protocols in the various services, it is important that appropriate training is provided to staff on how to screen for, and to assess risk of, family/whānau violence, as well as ensuring that relevant support mechanisms and safety processes are in place for people who disclose violence and serious risk to themselves or others. This includes support not only for victims but also for perpetrators who wish to change their behaviour. It is important too that positive responses to screening are further explored with supported facilitation to appropriate family/whānau

violence services. Without active facilitation to family/whānau violence services, there may not be a translation of people who screen positively for family/whānau violence actually accessing the relevant support services, as was identified in a recent Cochrane review (Taft, O'Doherty, Hegarty, Ramsay, Davidson & Feder, 2013). Thus there needs to be a collaborative approach between problem gambling and other healthcare services with family violence and child protection services to ensure that a seamless and efficient mechanism exists to identify violence and then to provide the best processes to protect victims from further abuse and serious injury.

In summary, although more research is required, the present study has shown that there is a relationship between problem gambling and family/whānau violence. The study has also shown that the short screen used in the study (the HITS scale) is simple and practical to use by people who are not family violence experts. If this simple screening tool were to be used together with existing procedures in a collaborative inter-agency and case management approach in order to identify family violence amongst people who are affected by gambling problems, this could improve the outcomes for those people. This aligns with the Ministry of Health's move towards provision of integrated holistic services for people with co-existing mental health and addiction problems (Ministry of Health, 2010a; Todd, 2010) and whānau-centred services (Durie, Cooper, Grennell, Snively, & Tuaine, 2010).



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## APPENDIX 1: ETHICAL APPROVAL



A U T E C  
S E C R E T A R I A T

23 May 2013

Maria Bellringer  
Faculty of Health and Environmental Sciences

Dear Maria

Re Ethics Application: **13/73 Family/whanau violence in problem gambling help-seeking populations.**

Thank you for providing evidence as requested, which satisfies the points raised by the AUT University Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 22 May 2016.

As part of the ethics approval process, you are required to submit the following to AUTEC:

- A brief annual progress report using form EA2, which is available online through <http://www.aut.ac.nz/researchethics>. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 22 May 2016;
- A brief report on the status of the project using form EA3, which is available online through <http://www.aut.ac.nz/researchethics>. This report is to be submitted either when the approval expires on 22 May 2016 or on completion of the project.

It is a condition of approval that AUTEC is notified of any adverse events or if the research does not commence. AUTEC approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

AUTEC grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to obtain this. If your research is undertaken within a jurisdiction outside New Zealand, you will need to make the arrangements necessary to meet the legal and ethical requirements that apply there.

To enable us to provide you with efficient service, please use the application number and study title in all correspondence with us. If you have any enquiries about this application, or anything else, please do contact us at [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz).

All the very best with your research,

Madeline Banda  
Acting Executive Secretary  
**Auckland University of Technology Ethics Committee**

## APPENDIX 2: PHASE II GAMBLERS BIVARIATE ASSOCIATIONS WITH BEING A VICTIM OF FAMILY/WHĀNAU VIOLENCE

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Initial telephone or face-to-face contact</b>				
Telephone	57.1	1.00		
Face-to-face	48.7	1.41	(0.47, 4.25)	0.55
<b>Problem Gambling Severity Index</b>				
Non-problem gambler/low-risk gambler	25.0	1.00		
Moderate-risk gambler	33.3	1.50	(0.29, 7.81)	
Problem gambler	53.4	3.44	(1.05, 11.20)	0.06
<b>Age group (years)</b>				
20 - 24	53.9	1.00		
25 - 44	48.7	0.81	(0.25, 2.65)	
45+	49.3	0.83	(0.26, 2.72)	0.94
<b>Gender</b>				
Female	57.1	1.00		
Male	43.6	0.58	(0.31, 1.08)	0.09
<b>Ethnic group (prioritised)</b>				
Māori	61.3	1.51	(0.65, 3.50)	
Pacific	60.0	1.43	(0.53, 3.86)	
Asian	27.6	0.36	(0.14, 0.91)	
European/Other	51.2	1.00		0.05
<b>Relationship status</b>				
Single	43.6	1.00		
Not living with partner/spouse	54.6	1.56	(0.59, 4.14)	
Living with partner/spouse	52.5	1.43	(0.74, 2.79)	0.50
<b>Living arrangements</b>				
Single person household	37.0	1.00		
Couple with children	56.4	2.20	(0.85, 5.65)	
Couple without children	48.3	1.59	(0.55, 4.62)	
One parent family	75.0	5.10	(1.42, 18.32)	
Other/group or shared household	33.3	0.85	(0.29, 2.47)	0.03
<b>Children less than 18 years usually living in household</b>				
No	39.4	1.00		
Yes	66.7	3.07	(1.58, 6.00)	0.0009
<b>Number of children less than 18 years usually living in household</b>				
0	39.4	1.00		
1	72.0	3.95	(1.52, 10.29)	
2 or more	62.9	2.60	(1.18, 5.73)	0.004
<b>Employment status</b>				
Employed	53.2	1.00		
Unemployed	41.9	0.64	(0.28, 1.42)	
Student/retired/homemaker/not looking for work	41.7	0.63	(0.26, 1.54)	0.39
<b>Income support status</b>				
No benefit	53.5	1.00		
Receiving benefit (incl. superannuation)	43.1	0.66	(0.35, 1.23)	0.19
<b>Highest educational level</b>				
University degree or higher	37.5	1.00		
Tertiary diploma/certificate (undergraduate)	50.0	1.67	(0.56, 4.97)	
Trade or technical certificate/qualification	55.6	2.08	(0.60, 7.23)	
Secondary school qualification	43.8	1.30	(0.50, 3.40)	
None or below secondary school level	66.7	3.33	(1.06, 10.53)	0.24
<b>Annual personal income</b>				
\$20,000 or less	38.6	1.00		
\$20,001 - \$40,000	55.3	1.96	(0.81, 4.74)	
\$40,001 - \$60,000	58.3	2.22	(0.91, 5.46)	
More than \$60,000	53.3	1.82	(0.71, 4.64)	0.29
<b>Casino table games or EGMs main form of problem</b>				
No	53.7	1.00		
Yes	28.6	0.35	(0.14, 0.84)	0.02
<b>Casino EGMs main form of problem</b>				
No	50.4	1.00		
Yes	46.2	0.84	(0.41, 1.74)	0.64

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Pub or club EGMs main form of problem</b>				
No	36.1	1.00		
Yes	59.8	2.63	(1.39, 4.97)	0.003
<b>Sports or track betting main form of problem</b>				
No	49.0	1.00		
Yes	52.9	1.17	(0.43, 3.20)	0.76
<b>Length of gambling problems (quartiles)</b>				
2 years or less	35.7	1.00		
3 - 6 years	48.8	1.72	(0.72, 4.10)	
7 - 12 years	63.6	3.15	(1.31, 7.60)	
13 years or more	46.9	1.59	(0.62, 4.06)	0.09
<b>Average number of gambling sessions per week before starting counselling (quartiles)</b>				
2 or less	50.8	1.00		
3	47.1	0.86	(0.37, 1.99)	
4 or 5	55.2	1.19	(0.49, 2.88)	
6 or more	44.8	0.79	(0.33, 1.90)	0.86
<b>Average expenditure on gambling per week before starting counselling (quartiles)</b>				
\$160 or less	41.0	1.00		
\$161 - \$300	48.7	1.37	(0.56, 3.34)	
\$301 - \$600	59.5	2.11	(0.87, 5.13)	
\$601 or more	51.5	1.53	(0.60, 3.89)	0.42
<b>Average time spent gambling per week before starting counselling (quartiles)</b>				
5 hours or less	60.0	1.00		
6 - 8 hours	41.4	0.47	(0.19, 1.18)	
9 - 15 hours	48.5	0.63	(0.26, 1.50)	
16 hours or more	42.9	0.50	(0.21, 1.18)	0.29
<b>Received counselling or medication for gambling in past 12 months</b>				
No	45.7	1.00		
Yes, but not now	61.9	1.93	(0.75, 4.99)	
Yes, currently	62.5	1.98	(0.68, 5.78)	0.22
<b>Regularly attended Gamblers Anonymous meetings in past 12 months</b>				
No	51.4	1.00		
Yes	34.8	0.50	(0.20, 1.26)	0.14
<b>Self-excluded from venues in past 12 months</b>				
No	54.4	1.00		
Yes, but not now	21.4	0.23	(0.06, 0.87)	
Yes, currently	49.2	0.81	(0.42, 1.56)	0.10
<b>Current or impending court or legal matters related to gambling</b>				
No	49.3	1.00		
Yes	45.5	0.86	(0.25, 3.00)	0.80
<b>Gambling motivation, coping score (Gambling Motives Questionnaire) (quartiles)</b>				
7 or less	34.6	1.00		
8 - 11	40.0	1.26	(0.45, 3.51)	
12 - 15	48.1	1.75	(0.66, 4.63)	
16 or more	68.3	4.07	(1.44, 11.53)	0.03
<b>Gambling motivation, enhancement score (Gambling Motives Questionnaire) (quartiles)</b>				
10 or less	51.0	1.00		
11 - 13	47.6	0.87	(0.38, 1.99)	
14 - 16	42.4	0.71	(0.29, 1.72)	
17 or more	47.1	0.85	(0.36, 2.05)	0.90
<b>Gambling motivation, social score (Gambling Motives Questionnaire) (quartiles)</b>				
6 or less	55.1	1.00		
7	55.6	1.02	(0.42, 2.50)	
8 - 9	50.0	0.82	(0.33, 2.01)	
10 or more	28.6	0.33	(0.14, 0.78)	0.08
<b>Alcohol use in past year (AUDIT)</b>				
Non-risky	43.9	1.00		
Risky	62.8	2.15	(1.09, 4.26)	0.03
<b>Drug use in past year (DAST)</b>				
No problems	45.8	1.00		
Low level of problems	66.7	2.37	(0.84, 6.69)	
Moderate/substantial level of problems	58.3	1.66	(0.50, 5.49)	0.21



Variable	%	Odds Ratio	(95% CI)	p-value
<b>Tobacco use</b>				
Never	50.8	1.00		
Ex-smoker	28.6	0.39	(0.13, 1.12)	
Smoker	54.0	1.14	(0.59, 2.21)	0.13
<b>Self-rated health</b>				
Excellent	43.1	1.00		
Good	51.8	1.42	(0.68, 2.97)	
Fair/poor	54.0	1.55	(0.72, 3.32)	0.48
<b>Self-rated quality of life</b>				
Poor/very poor	45.5	1.00		
Neither poor nor good	59.1	1.73	(0.62, 4.87)	
Good	43.9	0.94	(0.36, 2.48)	
Very good	50.0	1.20	(0.40, 3.56)	0.47
<b>Psychological distress in past four weeks (Kessler-10)</b>				
No distress	34.7	1.00		
Moderate level of distress	51.3	1.98	(0.95, 4.12)	
High level of distress	65.7	3.61	(1.45, 8.99)	0.02
<b>General distress, anxiety score (Symptom Rating Test) (quartiles)</b>				
2 or less	32.7	1.00		
3 - 5	42.1	1.50	(0.63, 3.56)	
6 - 8	66.7	4.12	(1.70, 9.95)	
9 or more	61.8	3.33	(1.35, 8.20)	0.005
<b>General distress, depression score (Symptom Rating Test) (quartiles)</b>				
3 or less	28.3	1.00		
4 - 7	55.8	3.21	(1.33, 7.73)	
8 - 11	51.2	2.66	(1.11, 6.39)	
12 or more	68.8	5.59	(2.09, 14.96)	0.005
<b>General distress, inadequacy symptoms score (Symptom Rating Test) (quartiles)</b>				
3 or less	36.1	1.00		
4 - 5	31.8	0.83	(0.29, 2.34)	
6 - 8	61.1	3.17	(1.37, 7.31)	
9 or more	64.1	3.17	(1.37, 7.31)	0.004
<b>General distress, somatic symptoms score (Symptom Rating Test) (quartiles)</b>				
1	33.9	1.00		
2	50.0	1.95	(0.70, 5.43)	
3 - 6	54.0	2.29	(1.07, 4.93)	
7 or more	74.2	5.61	(2.15, 14.68)	0.004
<b>Belonging score (Interpersonal Support Evaluation List) (quartiles)</b>				
6 or less	52.6	1.00		
6.1 - 8	52.2	0.98	(0.35, 2.77)	
8.1 - 9	48.2	0.84	(0.31, 2.24)	
9 or more	48.6	0.85	(0.39, 1.87)	0.97
<b>Appraisal score (Interpersonal Support Evaluation List) (quartiles)</b>				
5 or less	42.9	1.00		
6 - 8	64.9	2.46	(0.90, 6.74)	
9 - 11	48.8	1.27	(0.49, 3.32)	
12 or more	45.1	1.10	(0.43, 2.78)	0.24
<b>Tangible social support score (Interpersonal Support Evaluation List) (quartiles)</b>				
6 or less	60.6	1.00		
7 - 9	39.4	0.42	(0.16, 1.13)	
10 - 11	56.3	0.84	(0.31, 2.24)	
12 or more	44.4	0.52	(0.22, 1.23)	0.25
<b>Anger score (Buss-Perry Aggression Questionnaire) (quartiles)</b>				
3.5 or less	29.3	1.00		
4 - 6	56.8	3.18	(1.29, 7.81)	
6.5 - 10	51.1	2.52	(1.04, 6.10)	
10.5 or more	62.5	4.03	(1.51, 10.76)	0.02
<b>Hostility score (Buss-Perry Aggression Questionnaire) (quartiles)</b>				
3 or less	34.2	1.00		
4 - 7	54.6	2.31	(0.96, 5.56)	
8 - 10	58.1	2.68	(1.11, 6.49)	
11 or more	51.5	2.05	(0.80, 5.24)	0.14

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Impulse score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
7 or less	28.9	1.00		
8 - 11	63.4	4.27	(1.73, 10.55)	
12 - 16	51.1	2.57	(1.08, 6.14)	
17 or more	57.6	3.34	(1.30, 8.59)	0.01
<b>Goals score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
9 or less	40.0	1.00		
9.5 - 12	44.4	1.20	(0.50, 2.86)	
12.5 - 16.5	59.5	2.20	(0.93, 5.23)	
17 or more	56.1	1.92	(0.83, 4.43)	0.23
<b>Strategies score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
10 or less	32.6	1.00		
11 - 15	60.5	3.17	(1.29, 7.76)	
16 - 22	43.2	1.57	(0.67, 3.70)	
23 or more	66.7	4.13	(1.64, 10.45)	0.009
<b>Manage own money</b>				
Yes	47.0	1.00		
No	60.0	1.69	(0.76, 3.78)	0.20
<b>Any violence perpetration (excl. financial violence)</b>				
No	23.7	1.00		
Yes	81.7	14.40	(6.68, 31.05)	<0.0001
<b>Financial violence - Concerns about money, valuable or property going missing</b>				
No	48.6	1.00		
Yes	55.6	1.32	(0.49, 3.54)	0.58
<b>Financial violence - Taken anything from family/whānau member's purse/wallet without permission</b>				
No	43.7	1.00		
Yes	75.9	4.05	(1.62, 10.12)	0.003
<b>Financial violence - Taken anything from family/whānau member's bank account without permission</b>				
No	46.2	1.00		
Yes	71.4	2.92	(1.07, 7.95)	0.04
<b>Being a victim of any financial violence</b>				
No	46.6	1.00		
Yes	56.3	1.46	(0.75, 2.91)	0.26
<b>Any financial violence perpetration</b>				
No	43.4	1.00		
Yes	66.7	2.60	(1.25, 5.43)	0.01
<b>Violence perpetration - Physically hurt family/whānau member</b>				
No	46.4	1.00		
Yes	75.0	3.33	(0.87, 12.79)	0.08
<b>Violence perpetration - Threatened to harm family/whānau member</b>				
No	46.7	1.00		
Yes	76.9	3.81	(1.01, 14.40)	0.05
<b>Violence perpetration - Insulted or talked down to family/whānau member</b>				
No	33.0	1.00		
Yes	84.6	11.15	(4.76, 26.07)	<0.0001
<b>Violence perpetration - Screamed or cursed at family/whānau member</b>				
No	27.0	1.00		
Yes	84.4	14.60	(6.52, 32.69)	<0.0001
<b>Mental health issue in family/whānau in past 12 months</b>				
No	44.8	1.00		
Yes	57.8	1.68	(0.84, 3.38)	0.14
<b>Alcohol issue in family/whānau in past 12 months</b>				
No	46.5	1.00		
Yes	59.4	1.68	(0.77, 3.70)	0.19
<b>Drug issue in family/whānau in past 12 months</b>				
No	45.3	1.00		
Yes	69.6	2.76	(1.07, 7.15)	0.04
<b>Strengths and Difficulties Questionnaire - Hyperactivity</b>				
Normal	44.9	1.00		
Borderline or abnormal	83.3	6.14	(1.30, 28.98)	0.02
<b>Strengths and Difficulties Questionnaire - Emotional symptoms</b>				
Normal	44.8	1.00		
Borderline or abnormal	72.7	3.28	(0.84, 12.87)	0.09

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Strengths and Difficulties Questionnaire - Conduct problems</b>				
Normal	45.1	1.00		
Borderline or abnormal	75.0	3.65	(0.71, 18.68)	0.12
<b>Strengths and Difficulties Questionnaire - Peer problems</b>				
Normal	46.4	1.00		
Borderline or abnormal	53.3	1.32	(0.45, 3.84)	0.61
<b>Strengths and Difficulties Questionnaire - Total score excluding prosocial behaviour</b>				
Normal	42.80	1.00		
Borderline or abnormal	75.00	4.02	(1.04, 15.49)	0.04
<b>Victorian Problem Gambling Family Impact score (quartiles)</b>				
18 or less	25.6	1.00		
19 - 31.5	34.2	1.51	(0.56, 4.03)	
32 - 45	60.0	4.35	(1.67, 11.33)	
45.5 or more	71.4	7.25	(2.60, 20.24)	0.0002

### APPENDIX 3: PHASE II GAMBLERS BIVARIATE ASSOCIATIONS WITH BEING A PERPETRATOR OF FAMILY/WHĀNAU VIOLENCE

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Initial telephone or face-to-face contact</b>				
Telephone	42.0	1.00		
Face-to-face	57.1	1.84	(0.61, 5.57)	0.28
<b>Problem Gambling Severity Index</b>				
Non-problem gambler/low-risk gambler	25.0	1.00		
Moderate-risk gambler	25.0	1.00	(0.18, 5.63)	
Problem gambler	46.6	2.62	(0.80, 8.54)	0.12
<b>Age group (years)</b>				
20 - 24	53.9	1.00		
25 - 44	46.1	0.73	(0.23, 2.38)	
45+	38.4	0.53	(0.16, 1.75)	0.46
<b>Gender</b>				
Female	54.3	1.00		
Male	35.1	0.46	(0.24, 0.86)	0.01
<b>Ethnic group (prioritised)</b>				
Māori	71.0	3.63	(1.49, 8.86)	
Pacific	55.0	1.82	(0.68, 4.86)	
Asian	17.2	0.31	(0.11, 0.89)	
European/Other	40.2	1.00		0.0007
<b>Relationship status</b>				
Single	35.5	1.00		
Not living with partner/spouse	45.5	1.52	(0.56, 4.07)	
Living with partner/spouse	48.8	1.73	(0.88, 3.42)	0.28
<b>Living arrangements</b>				
Single person household	33.3	1.00		
Couple with children	47.3	1.79	(0.69, 4.68)	
Couple without children	55.2	2.46	(0.83, 7.28)	
One parent family	60.0	3.00	(0.90, 9.96)	
Other/group or shared household	24.2	0.64	(0.21, 1.98)	0.04
<b>Children less than 18 years usually living in household</b>				
No	35.6	1.00		
Yes	56.7	2.37	(1.24, 4.53)	0.009
<b>Number of children less than 18 years usually living in household</b>				
0	35.6	1.00		
1	52.0	1.96	(0.81, 4.74)	
2 or more	60.0	2.72	(1.24, 5.96)	0.03
<b>Employment status</b>				
Employed	44.0	1.00		
Unemployed	45.2	1.05	(0.47, 2.33)	
Student/retired/homemaker/not looking for work	37.5	0.76	(0.31, 1.89)	0.82
<b>Income support status</b>				
No benefit	44.0	1.00		
Receiving benefit (incl. superannuation)	45.2	1.05	(0.47, 2.33)	0.55
<b>Highest educational level</b>				
University degree or higher	25.0	1.00		
Tertiary diploma/certificate (undergraduate)	36.7	1.74	(0.53, 5.68)	
Trade or technical certificate/qualification	50.0	3.00	(0.81, 11.08)	
Secondary school qualification	43.8	2.33	(0.82, 6.65)	
None or below secondary school level	59.3	4.36	(1.31, 14.51)	0.15
<b>Annual personal income</b>				
\$20,000 or less	34.1	1.00		
\$20,001 - \$40,000	57.9	2.66	(1.09, 6.51)	
\$40,001 - \$60,000	47.2	1.73	(0.70, 4.27)	
\$60,001 - \$80,000	44.4	1.55	(0.51, 4.74)	
More than \$80,000	50.0	1.93	(0.53, 7.04)	0.32
<b>Casino table games or EGMs main form of problem</b>				
No	47.8	1.00		
Yes	21.4	0.30	(0.11, 0.78)	0.01

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Casino EGMs main form of problem</b>				
No	44.8	1.00		
Yes	38.5	0.77	(0.37, 1.61)	0.49
<b>Pub or club EGMs main form of problem</b>				
No	30.6	1.00		
Yes	53.3	2.59	(1.36, 4.95)	0.004
<b>Sports or track betting main form of problem</b>				
No	42.9	1.00		
Yes	47.1	1.19	(0.43, 3.24)	0.74
<b>Length of gambling problems (quartiles)</b>				
2 years or less	35.7	1.00		
3 - 6 years	41.9	1.30	(0.54, 3.11)	
7 - 12 years	54.6	2.16	(0.91, 5.14)	
13 years or more	37.5	1.08	(0.42, 2.80)	0.30
<b>Average number of gambling sessions per week before starting counselling (quartiles)</b>				
2 or less	46.0	1.00		
3	38.2	0.73	(0.31, 1.70)	
4 or 5	51.7	1.26	(0.52, 3.03)	
6 or more	41.4	0.83	(0.34, 2.02)	0.72
<b>Average expenditure on gambling per week before starting counselling (quartiles)</b>				
\$160 or less	43.6	1.00		
\$161 - \$300	30.8	0.58	(0.23, 1.46)	
\$301 - \$600	57.1	1.73	(0.72, 4.16)	
\$601 or more	36.4	0.74	(0.29, 1.91)	0.10
<b>Average time spent gambling per week before starting counselling (quartiles)</b>				
5 hours or less	40.0	1.00		
6 - 8 hours	34.5	0.79	(0.31, 2.01)	
9 - 15 hours	57.6	2.04	(0.85, 4.89)	
16 hours or more	40.0	1.00	(0.42, 2.38)	0.27
<b>Received counselling or medication for gambling in past 12 months</b>				
No	36.2	1.00		
Yes, but not now	66.7	3.52	(1.33, 9.35)	
Yes, currently	68.8	3.87	(1.27, 11.84)	0.005
<b>Regularly attended Gamblers Anonymous meetings in past 12 months</b>				
No	42.1	1.00		
Yes	47.8	1.26	(0.52, 3.05)	0.61
<b>Self-excluded from venues in past 12 months</b>				
No	48.9	1.00		
Yes, but not now	35.7	0.58	(0.18, 1.87)	
Yes, currently	37.3	0.62	(0.32, 1.22)	0.31
<b>Current or impending court or legal matters related to gambling</b>				
No	48.9	1.00		
Yes	35.7	0.58	(0.18, 1.87)	0.16
<b>Gambling motivation, coping score (Gambling Motives Questionnaire) (quartiles)</b>				
7 or less	34.6	1.00		
8 - 11	35.0	1.02	(0.36, 2.87)	
12 - 15	48.1	1.75	(0.66, 4.63)	
16 or more	53.7	2.19	(0.79, 6.03)	0.25
<b>Gambling motivation, enhancement score (Gambling Motives Questionnaire) (quartiles)</b>				
10 or less	42.9	1.00		
11 - 13	40.5	0.91	(0.39, 2.09)	
14 - 16	42.4	0.98	(0.40, 2.40)	
17 or more	44.1	1.05	(0.44, 2.54)	0.99
<b>Gambling motivation, social score (Gambling Motives Questionnaire) (quartiles)</b>				
6 or less	46.4	1.00		
7	40.7	0.80	(0.32, 1.96)	
8 - 9	46.2	0.99	(0.40, 2.45)	
10 or more	34.3	0.60	(0.26, 1.40)	0.67
<b>Alcohol use in past year (AUDIT)</b>				
Non-risky	38.3	1.00		
Risky	52.9	1.81	(0.92, 3.55)	0.08
<b>Drug use in past year (DAST)</b>				
No problems	38.9	1.00		
Low level of problems	61.1	2.47	(0.90, 6.77)	
Moderate/substantial level of problems	58.3	2.20	(0.66, 7.29)	0.12

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Tobacco use</b>				
Never	43.1	1.00		
Ex-smoker	14.3	0.22	(0.06, 0.82)	
Smoker	51.3	1.39	(0.72, 2.71)	0.02
<b>Self-rated health</b>				
Excellent	36.2	1.00		
Good	44.6	1.42	(0.67, 3.01)	
Fair/poor	50.0	1.76	(0.82, 3.810)	0.34
<b>Self-rated quality of life</b>				
Poor/very poor	45.5	1.00		
Neither poor nor good	47.7	1.10	(0.39, 3.06)	
Good	42.4	0.88	(0.34, 2.33)	
Very good	37.5	0.72	(0.24, 2.17)	0.84
<b>Psychological distress in past four weeks (Kessler-10)</b>				
No distress	30.6	1.00		
Moderate level of distress	45.0	1.85	(0.88, 3.93)	
High level of distress	57.1	3.02	(1.22, 7.46)	0.05
<b>General distress, anxiety score (Symptom Rating Test) (quartiles)</b>				
2 or less	26.9	1.00		
3 - 5	36.8	1.58	(0.64, 3.89)	
6 - 8	64.1	4.85	(1.98, 11.88)	
9 or more	50.0	2.71	(1.09, 6.74)	0.004
<b>General distress, depression score (Symptom Rating Test) (quartiles)</b>				
3 or less	28.3	1.00		
4 - 7	48.8	2.42	(1.01, 5.83)	
8 - 11	46.5	2.21	(0.92, 5.31)	
12 or more	53.1	2.88	(1.12, 7.41)	0.11
<b>General distress, inadequacy symptoms score (Symptom Rating Test) (quartiles)</b>				
3 or less	31.2	1.00		
4 - 5	40.9	1.53	(0.56, 4.19)	
6 - 8	51.3	2.33	(1.02, 5.33)	
9 or more	56.4	2.86	(1.24, 6.58)	0.06
<b>General distress, somatic symptoms score (Symptom Rating Test) (quartiles)</b>				
1	32.3	1.00		
2	50.0	2.10	(0.75, 5.86)	
3 - 6	42.0	1.52	(0.70, 3.30)	
7 or more	64.5	3.82	(1.54, 9.47)	0.03
<b>Belonging score (Interpersonal Support Evaluation List) (quartiles)</b>				
6 or less	47.4	1.00		
7 - 8	43.5	0.86	(0.30, 2.42)	
9	48.2	1.03	(0.38, 2.77)	
10 or more	40.0	0.74	(0.33, 1.64)	0.85
<b>Appraisal score (Interpersonal Support Evaluation List) (quartiles)</b>				
6 or less	35.7	1.00		
7 - 8	54.1	2.12	(0.77, 5.80)	
9 - 11	46.5	1.57	(0.59, 4.16)	
12 or more	41.2	1.26	(0.49, 3.270)	0.47
<b>Tangible social support score (Interpersonal Support Evaluation List) (quartiles)</b>				
6 or less	54.6	1.00		
7 - 9	30.3	0.36	(0.13, 1.00)	
10 - 11	53.1	0.94	(0.36, 2.51)	
12 or more	38.1	0.51	(0.22, 1.20)	0.12
<b>Anger score (Buss-Perry Aggression Questionnaire) (quartiles)</b>				
3.5 or less	17.1	1.00		
4 - 6	40.9	3.36	(1.22, 9.24)	
6.5 - 10	51.1	5.07	(1.88, 13.70)	
10.5 or more	68.8	10.69	(3.54, 32.25)	0.0003
<b>Hostility score (Buss-Perry Aggression Questionnaire) (quartiles)</b>				
3 or less	31.7	1.00		
4 - 7	47.7	1.97	(0.81, 4.76)	
8 - 10	44.2	1.71	(0.70, 4.16)	
11 or more	51.5	2.29	(0.89, 5.91)	0.33

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Impulse score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
7 or less	24.4	1.00		
8 - 11	46.3	2.67	(1.07, 6.67)	
12 - 16	44.4	2.47	(1.01, 6.08)	
17 or more	63.6	5.41	(2.03, 14.45)	0.009
<b>Goals score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
9 or less	30.0	1.00		
9.5 - 12	44.4	1.87	(0.76, 4.56)	
12.5 - 16.5	48.7	2.21	(0.91, 5.35)	
17 or more	53.7	2.70	(1.14, 6.39)	0.13
<b>Strategies score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
10 or less	28.3	1.00		
11 - 15	60.5	3.89	(1.56, 9.71)	
16 - 22	29.6	1.07	(0.43, 2.65)	
23 or more	61.1	3.99	(1.58, 10.09)	0.001
<b>Manage own money</b>				
Yes	41.0			
No	53.3	1.64	(0.74, 3.64)	0.22
<b>Being a victim of any violence (excl. financial violence)</b>				
No	15.5	1.00		
Yes	72.5	14.4	(6.68, 31.04)	<0.0001
<b>Financial violence - Concerns about money, valuable or property going missing</b>				
No	42.5	1.00		
Yes	50.0	1.36	(0.51, 3.61)	0.54
<b>Financial violence - Taken anything from family/whānau member's purse/wallet without permission</b>				
No	37.8	1.00		
Yes	69.0	3.66	(1.55, 8.65)	0.003
<b>Financial violence - Taken anything from family/whānau member's bank account without permission</b>				
No	38.5	1.00		
Yes	76.2	5.12	(1.78, 14.77)	0.003
<b>Being a victim of any financial violence</b>				
No	38.8	1.00		
Yes	54.2	1.87	(0.95, 3.68)	0.07
<b>Any financial violence perpetration</b>				
No	36.1	1.00		
Yes	64.3	3.19	(1.54, 6.63)	0.002
<b>Violence victim - Been physically hurt by family/whānau member</b>				
No	40.9	1.00		
Yes	80.0	5.78	(1.19, 28.12)	0.03
<b>Violence victim - Been threatened with harm by family/whānau member</b>				
No	40.3	1.00		
Yes	73.3	4.08	(1.24, 13.41)	0.02
<b>Violence victim - Been insulted or talked down to by family/whānau member</b>				
No	26.4	1.00		
Yes	74.1	7.99	(3.85, 16.56)	<0.0001
<b>Violence victim - Been screamed or cursed at by family/whānau member</b>				
No	16.3	1.00		
Yes	77.8	17.96	(8.20, 39.35)	<0.0001
<b>Mental health issue in family/whānau in past 12 months</b>				
No	39.7	1.00		
Yes	55.6	1.90	(0.95, 3.81)	0.07
<b>Alcohol issue in family/whānau in past 12 months</b>				
No	38.6	1.00		
Yes	59.4	2.33	(1.06, 5.13)	0.04
<b>Drug issue in family/whānau in past 12 months</b>				
No	38.0	1.00		
Yes	69.6	3.74	(1.44, 9.69)	0.007
<b>Strengths and Difficulties Questionnaire - Hyperactivity</b>				
Normal	40.1	1.00		
Borderline or abnormal	66.7	2.98	(0.86, 10.36)	0.09
<b>Strengths and Difficulties Questionnaire - Emotional symptoms</b>				
Normal	40.0	1.00		
Borderline or abnormal	81.8	6.75	(1.41, 32.37)	0.02

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Strengths and Difficulties Questionnaire - Conduct problems</b>				
Normal	39.6	1.00		
Borderline or abnormal	62.5	2.54	(0.59, 11.06)	0.21
<b>Strengths and Difficulties Questionnaire - Peer problems</b>				
Normal	40.0	1.00		
Borderline or abnormal	60.0	2.25	(0.76, 6.67)	0.14
<b>Strengths and Difficulties Questionnaire - Total score excluding prosocial behaviour</b>				
Normal	38.4	1.00		
Borderline or abnormal	75.0	4.81	(1.25, 18.58)	0.02
<b>Victorian Problem Gambling Family Impact score (quartiles)</b>				
18 or less	28.2	1.00		
18.5 - 31.5	31.6	1.18	(0.44, 3.12)	
32 - 45	50.0	2.55	(1.00, 6.47)	
45.5 or more	65.7	4.88	(1.82, 13.09)	0.005



#### APPENDIX 4: PHASE II GAMBLERS BIVARIATE ASSOCIATIONS WITH BEING A VICTIM OF INTIMATE PARTNER VIOLENCE

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Initial telephone or face-to-face contact</b>				
Telephone	31.1	1.00		
Face-to-face	28.6	0.89	(0.26, 2.98)	0.85
<b>Problem Gambling Severity Index</b>				
Non-problem gambler/low-risk gambler	18.8	1.00		
Moderate-risk gambler	8.3	0.39	(0.04, 4.35)	
Problem gambler	35.1	2.35	(0.64, 8.65)	0.12
<b>Age group (years)</b>				
20 - 24	23.1	1.00		
25 - 44	29.7	1.41	(0.35, 5.62)	
45+	34.3	1.74	(0.44, 6.88)	0.68
<b>Gender</b>				
Female	33.3	1.00		
Male	29.0	0.82	(0.42, 1.60)	0.56
<b>Ethnic group (prioritised)</b>				
Māori	32.3	1.01	(0.42, 2.44)	
Pacific	35.0	1.14	(0.41, 3.19)	
Asian	25.0	0.71	(0.27, 1.87)	
European/Other	32.1	1.00		0.88
<b>Relationship status</b>				
Single	12.9	1.00		
Not living with partner/spouse	40.9	4.67	(1.51, 14.44)	
Living with partner/spouse	42.3	4.95	(2.08, 11.79)	0.001
<b>Living arrangements</b>				
Single person/other/group or shared household	13.3	1.00		
Couple with children	43.4	4.98	(1.98, 12.52)	
Couple without children	41.4	4.59	(1.61, 13.10)	
One parent family	35.0	3.50	(1.07, 11.42)	0.005
<b>Children less than 18 years usually living in household</b>				
No	24.0	1.00		
Yes	43.1	2.39	(1.20, 4.76)	0.01
<b>Number of children less than 18 years usually living in household</b>				
0	24.0	1.00		
1	44.0	2.48	(1.00, 6.16)	
2 or more	42.4	2.33	(1.02, 5.30)	0.04
<b>Employment status</b>				
Employed	35.5	1.00		
Unemployed	9.7	0.20	(0.06, 0.68)	
Student/retired/homemaker/not looking for work	37.5	1.09	(0.44, 2.72)	0.03
<b>Income support status</b>				
No benefit	37.1	1.00		
Receiving benefit (incl. superannuation)	21.5	0.47	(0.23, 0.96)	0.04
<b>Highest educational level</b>				
University degree or higher	29.2	1.00		
Tertiary diploma/certificate (undergraduate)	35.7	1.35	(0.42, 4.35)	
Trade or technical certificate/qualification	33.3	1.21	(0.33, 4.53)	
Secondary school qualification	26.6	0.88	(0.31, 2.49)	
None or below secondary school level	37.0	1.43	(0.44, 4.63)	0.84
<b>Annual personal income</b>				
\$20,000 or less	22.7	1.00		
\$20,001 - \$40,000	37.8	2.07	(0.79, 5.45)	
\$40,001 - \$60,000	31.4	1.56	(0.57, 4.25)	
\$60,001 - \$80,000	38.9	2.16	(0.66, 7.05)	
More than \$80,000	50.0	3.40	(0.90, 12.9)	0.37
<b>Casino table games or EGMs main form of problem</b>				
No	32.8	1.00		
Yes	21.4	0.56	(0.21, 1.48)	0.24
<b>Casino EGMs main form of problem</b>				
No	30.7	1.00		
Yes	31.6	1.05	(0.48, 2.29)	0.91

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Pub or club EGMs main form of problem</b>				
No	23.9	1.00		
Yes	36.3	1.81	(0.90, 3.61)	0.09
<b>Sports or track betting main form of problem</b>				
No	31.0	1.00		
Yes	29.4	0.93	(0.31, 2.78)	0.89
<b>Length of gambling problems (quartiles)</b>				
2 years or less	22.0	1.00		
3 - 6 years	16.3	0.69	(0.23, 2.07)	
7 - 12 years	51.2	3.73	(1.44, 9.64)	
13 years or more	34.4	1.86	(0.66, 5.26)	0.004
<b>Average number of gambling sessions per week before starting counselling (quartiles)</b>				
2 or less	30.7	1.00		
3	38.2	1.40	(0.58, 3.37)	
4 or 5	37.9	1.38	(0.55, 3.49)	
6 or more	17.2	0.47	(0.16, 1.42)	0.28
<b>Average expenditure on gambling per week before starting counselling (quartiles)</b>				
\$160 or less	23.7	1.00		
\$161 - \$300	31.6	1.49	(0.54, 4.10)	
\$301 - \$600	40.5	2.19	(0.83, 5.77)	
\$601 or more	30.3	1.40	(0.49, 4.02)	0.46
<b>Average time spent gambling per week before starting counselling (quartiles)</b>				
5 hours or less	35.9	1.00		
6 - 8 hours	31.0	0.81	(0.31, 2.12)	
9 - 15 hours	36.4	1.02	(0.41, 2.53)	
16 hours or more	22.9	0.53	(0.20, 1.40)	0.58
<b>Received counselling or medication for gambling in past 12 months</b>				
No	30.2	1.00		
Yes	33.3	1.16	(0.53, 2.55)	0.72
<b>Regularly attended Gamblers Anonymous meetings in past 12 months</b>				
No	31.9	1.00		
Yes	21.7	0.59	(0.21, 1.70)	0.33
<b>Self-excluded from venues in past 12 months</b>				
No	35.2	1.00		
Yes, but not now	7.1	0.14	(0.02, 1.13)	
Yes, currently	30.5	0.81	(0.40, 1.64)	0.17
<b>Current or impending court or legal matters related to gambling</b>				
No	31.3	1.00		
Yes	27.3	0.82	(0.21, 3.24)	0.78
<b>Gambling motivation, coping score (Gambling Motives Questionnaire) (quartiles)</b>				
7 or less	26.9	1.00		
8 - 11	25.6	0.94	(0.30, 2.89)	
12 - 15	31.4	1.24	(0.44, 3.54)	
16 or more	41.5	1.92	(0.66, 5.59)	0.44
<b>Gambling motivation, enhancement score (Gambling Motives Questionnaire) (quartiles)</b>				
10 or less	25.0	1.00		
11 - 13	31.0	1.35	(0.53, 3.39)	
14 - 16	28.1	1.17	(0.43, 3.22)	
17 or more	32.4	1.44	(0.54, 3.79)	0.89
<b>Gambling motivation, social score (Gambling Motives Questionnaire) (quartiles)</b>				
6 or less	34.3	1.00		
7	40.7	1.32	(0.53, 3.30)	
8 - 9	38.5	1.20	(0.47, 3.05)	
10 or more	14.3	0.32	(0.11, 0.93)	0.10
<b>Alcohol use in past year (AUDIT)</b>				
Non-risky	27.6	1.00		
Risky	37.3	1.56	(0.76, 3.17)	0.22
<b>Drug use in past year (DAST)</b>				
No problems	31.0	1.00		
Low level of problems	38.9	1.42	(0.51, 3.92)	
Moderate/substantial level of problems	16.7	0.45	(0.09, 2.13)	0.40
<b>Tobacco use</b>				
Never	36.5	1.00		
Ex-smoker	19.1	0.41	(0.12, 1.36)	
Smoker	29.0	0.71	(0.35, 1.45)	0.30

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Self-rated health</b>				
Excellent	24.1	1.00		
Good	33.3	1.57	(0.69, 3.59)	
Fair/poor	36.0	1.77	(0.77, 4.07)	0.37
<b>Self-rated quality of life</b>				
Poor/very poor	36.4	1.00		
Neither poor nor good	39.5	1.14	(0.40, 3.31)	
Good	23.1	0.53	(0.19, 1.49)	
Very good	31.3	0.80	(0.25, 2.50)	0.31
<b>Psychological distress in past four weeks (Kessler-10)</b>				
No distress	20.8	1.00		
Moderate level of distress	29.1	1.56	(0.67, 3.65)	
High level of distress	48.6	3.59	(1.37, 9.39)	0.03
<b>General distress, anxiety score (Symptom Rating Test) (quartiles)</b>				
2 or less	17.7	1.00		
3 - 5	21.6	1.29	(0.44, 3.73)	
6 - 8	41.0	3.25	(1.24, 8.50)	
9 or more	47.1	4.15	(1.55, 11.12)	0.01
<b>General distress, depression score (Symptom Rating Test) (quartiles)</b>				
3 or less	13.3	1.00		
4 - 7	33.3	3.25	(1.11, 9.50)	
8 - 11	30.2	2.82	(0.96, 8.28)	
12 or more	53.1	7.37	(2.44, 22.24)	0.005
<b>General distress, inadequacy symptoms score (Symptom Rating Test) (quartiles)</b>				
3 or less	20.0	1.00		
4 - 5	14.3	0.67	(0.17, 2.64)	
6 - 8	35.9	2.24	(0.90, 5.57)	
9 or more	48.7	3.80	(1.56, 9.27)	0.009
<b>General distress, somatic symptoms score (Symptom Rating Test) (quartiles)</b>				
1	18.0	1.00		
2	35.0	2.45	(0.79, 7.56)	
3 - 6	28.6	1.82	(0.74, 4.47)	
7 or more	58.1	6.29	(2.39, 16.55)	0.003
<b>Belonging score (Interpersonal Support Evaluation List) (quartiles)</b>				
6 or less	39.5	1.00		
6.1 - 8	30.4	0.67	(0.22, 2.02)	
8.1 - 9	29.6	0.65	(0.23, 1.85)	
9 or more	27.9	0.60	(0.26, 1.38)	0.67
<b>Appraisal score (Interpersonal Support Evaluation List) (quartiles)</b>				
5 or less	32.1	1.00		
6 - 8	37.8	1.29	(0.46, 3.62)	
9 - 11	35.7	1.17	(0.43, 3.23)	
12 or more	24.0	0.67	(0.24, 1.86)	0.51
<b>Tangible social support score (Interpersonal Support Evaluation List) (quartiles)</b>				
6 or less	48.5	1.00		
7 - 9	21.2	0.29	(0.10, 0.84)	
10 - 11	33.3	0.53	(0.19, 1.48)	
12 or more	25.4	0.36	(0.15, 0.88)	0.07
<b>Anger score (Buss-Perry Aggression Questionnaire) (quartiles)</b>				
3.5 or less	15.0	1.00		
4 - 6	34.9	3.04	(1.04, 8.86)	
6.5 - 10	25.5	1.94	(0.66, 5.77)	
10.5 or more	53.1	6.42	(2.11, 19.51)	0.007
<b>Hostility score (Buss-Perry Aggression Questionnaire) (quartiles)</b>				
3 or less	20.5	1.00		
4 - 7	31.8	1.81	(0.66, 4.93)	
8 - 10	34.9	2.08	(0.77, 5.64)	
11 or more	39.4	2.52	(0.89, 7.16)	0.35
<b>Impulse score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
7 or less	17.8	1.00		
8 - 11	33.3	2.31	(0.84, 6.37)	
12 - 16	31.1	2.09	(0.78, 5.63)	
17 or more	45.5	3.85	(1.38, 10.76)	0.08

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Goals score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
9 or less	22.5	1.00		
9.5 - 12	28.6	1.38	(0.51, 3.73)	
12.5 - 16.5	32.4	1.66	(0.63, 4.34)	
17 or more	41.5	2.45	(0.98, 6.11)	0.23
<b>Strategies score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
10 or less	19.6	1.00		
11 - 15	30.6	1.81	(0.65, 5.00)	
16 - 22	25.0	1.37	(0.51, 3.72)	
23 or more	52.8	4.60	(1.73, 12.23)	0.01
<b>Partner/ex-partner manages respondent's money</b>				
No	28.4	1.00		
Yes	47.6	2.30	(0.91, 5.83)	0.08
<b>Any violence perpetration to partner/ex-partner (excl. financial violence)</b>				
No	12.8	1.00		
Yes	77.8	23.80	(9.8, 57.8)	<0.0001
<b>Financial violence - Taken anything from partner/ex-partner purse/wallet without permission</b>				
No	25.9	1.00		
Yes	80.0	11.47	(3.07, 42.86)	0.0003
<b>Financial violence - Taken anything from partner/ex-partner bank account without permission</b>				
No	28.3	1.00		
Yes	70.0	5.92	(1.46, 23.93)	0.01
<b>Being a victim of any financial violence by partner/ex-partner</b>				
No	26.1	1.00		
Yes	53.6	3.26	(1.41, 7.54)	0.006
<b>Any financial violence perpetration to partner/ex-partner</b>				
No	23.9	1.00		
Yes	70.8	7.73	(2.95, 20.25)	<0.0001
<b>Violence perpetration - Physically hurt partner/ex-partner</b>				
No	28.3	1.00		
Yes	70.0	5.92	(1.46, 23.93)	0.01
<b>Violence perpetration - Threatened to harm partner/ex-partner</b>				
No	28.1	1.00		
Yes	75.0	7.67	(1.49, 39.51)	0.01
<b>Violence perpetration - Insulted or talked down to partner/ex-partner</b>				
No	16.7	1.00		
Yes	80.6	20.71	(8.02, 53.51)	<0.0001
<b>Violence perpetration - Screamed or cursed at partner/ex-partner</b>				
No	13.2	1.00		
Yes	82.9	31.87	(12.10, 83.96)	<0.0001
<b>Mental health issue in partner/ex-partner in past 12 months</b>				
No	28.7	1.00		
Yes	66.7	4.98	(1.19, 20.80)	0.03
<b>Alcohol issue in partner/ex-partner in past 12 months</b>				
No	26.4	1.00		
Yes	88.9	22.36	(2.71, 184.56)	0.004
<b>Drug issue in partner/ex-partner in past 12 months</b>				
No	29.3	1.00		
Yes	50.0	2.41	(0.58, 10.06)	0.23
<b>Strengths and Difficulties Questionnaire - Hyperactivity</b>				
Normal	29.0	1.00		
Borderline or abnormal	41.7	1.75	(0.53, 5.83)	0.36
<b>Strengths and Difficulties Questionnaire - Emotional symptoms</b>				
Normal	27.3	1.00		
Borderline or abnormal	63.6	4.67	(1.29, 16.83)	0.02
<b>Strengths and Difficulties Questionnaire - Conduct problems</b>				
Normal	28.7	1.00		
Borderline or abnormal	57.1	3.32	(0.71, 15.48)	0.13
<b>Strengths and Difficulties Questionnaire - Peer problems</b>				
Normal	28.8	1.00		
Borderline or abnormal	42.9	1.86	(0.61, 5.69)	0.28
<b>Strengths and Difficulties Questionnaire - Total score excluding prosocial behaviour</b>				
Normal	27.2	1.00		
Borderline or abnormal	50.0	2.68	(0.81, 8.82)	0.11

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Victorian Problem Gambling Family Impact score (quartiles)</b>				
18 or less	15.4	1.00		
19 - 31.5	16.2	1.06	(0.31, 3.65)	
32 - 45	46.2	4.71	(1.61, 13.8)	
45.5 or more	48.6	5.19	(1.74, 15.51)	0.001

## APPENDIX 5: PHASE II GAMBLERS BIVARIATE ASSOCIATIONS WITH PERPETRATING INTIMATE PARTNER VIOLENCE

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Initial telephone or face-to-face contact</b>				
Telephone	25.3	1.00		
Face-to-face	57.1	3.93	(1.28, 12.05)	0.02
<b>Problem Gambling Severity Index</b>				
Non-problem gambler/low-risk gambler	18.8	1.00		
Moderate-risk gambler	16.7	0.87	(0.12, 6.22)	
Problem gambler	30.8	1.93	(0.52, 7.14)	0.39
<b>Age group (years)</b>				
20 - 24	23.1	1.00		
25 - 44	31.6	1.54	(0.39, 6.10)	
45+	26.0	1.17	(0.29, 4.72)	0.68
<b>Gender</b>				
Female	34.3	1.00		
Male	23.4	0.59	(0.30, 1.16)	0.13
<b>Ethnic group (prioritised)</b>				
Māori	38.7	1.96	(0.81, 4.73)	
Pacific	45.0	2.54	(0.92, 7.00)	
Asian	24.4	0.65	(0.22, 1.92)	
European/Other	17.2	1.00		0.09
<b>Relationship status</b>				
Single	11.3	1.00		
Not living with partner/spouse	31.8	3.67	(1.11, 12.09)	
Living with partner/spouse	40.0	5.24	(2.12, 12.94)	0.002
<b>Living arrangements</b>				
Single person/other/group or shared household	10.0	1.00		
Couple with children	40.0	6.00	(2.21, 16.33)	
Couple without children	41.4	6.35	(2.07, 19.50)	
One parent family	30.0	3.86	(1.08, 13.81)	0.003
<b>Children less than 18 years usually living in household</b>				
No	21.2	1.00		
Yes	40.0	2.49	(1.24, 5.00)	0.01
<b>Number of children less than 18 years usually living in household</b>				
0	21.2	1.00		
1	28.0	1.45	(0.54, 3.91)	
2 or more	48.6	3.52	(1.56, 7.94)	0.01
<b>Employment status</b>				
Employed	30.3	1.00		
Unemployed	19.4	0.55	(0.21, 1.47)	
Student/retired/homemaker/not looking for work	29.2	0.95	(0.36, 2.50)	0.49
<b>Income support status</b>				
No benefit	30.3	1.00		
Receiving benefit (incl. superannuation)	24.6	0.75	(0.37, 1.53)	0.43
<b>Highest educational level</b>				
University degree or higher	16.7	1.00		
Tertiary diploma/certificate (undergraduate)	26.7	1.82	(0.47, 6.97)	
Trade or technical certificate/qualification	27.8	1.92	(0.43, 8.52)	
Secondary school qualification	28.1	1.96	(0.59, 6.52)	
None or below secondary school level	40.7	3.44	(0.92, 12.87)	0.47
<b>Annual personal income</b>				
\$20,000 or less	20.5	1.00		
\$20,001 - \$40,000	39.5	2.54	(0.95, 6.76)	
\$40,001 - \$60,000	33.3	1.94	(0.71, 5.33)	
\$60,001 - \$80,000	27.8	1.50	(0.42, 5.30)	
More than \$80,000	33.3	1.94	(0.48, 7.93)	0.45
<b>Casino table games or EGMs main form of problem</b>				
No	30.2	1.00		
Yes	17.9	0.50	(0.18, 1.42)	0.19
<b>Casino EGMs main form of problem</b>				
No	29.6	1.00		
Yes	23.1	0.71	(0.31, 1.65)	0.43

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Pub or club EGMs main form of problem</b>				
No	20.8	1.00		
Yes	33.7	1.93	(0.95, 3.95)	0.07
<b>Sports or track betting main form of problem</b>				
No	27.9	1.00		
Yes	29.4	1.08	(0.36, 3.25)	0.89
<b>Length of gambling problems (quartiles)</b>				
2 years or less	23.8	0.41	(0.16, 1.04)	
3 - 6 years	18.6	0.30	(0.11, 0.80)	
7 - 12 years	43.2	1.00		
13 years or more	25.0	0.44	(0.16, 1.19)	0.07
<b>Average number of gambling sessions per week before starting counselling (quartiles)</b>				
2 or less	34.9	1.00		
3	29.4	0.78	(0.32, 1.91)	
4 or 5	31.0	0.84	(0.33, 2.15)	
6 or more	10.3	0.22	(0.06, 0.79)	0.15
<b>Average expenditure on gambling per week before starting counselling (quartiles)</b>				
\$160 or less	33.3	1.00		
\$161 - \$300	23.1	0.60	(0.22, 1.63)	
\$301 - \$600	40.5	1.36	(0.55, 3.37)	
\$601 or more	15.2	0.36	(0.11, 1.14)	0.09
<b>Average time spent gambling per week before starting counselling (quartiles)</b>				
5 hours or less	27.3	1.00		
6 - 8 hours	24.1	0.85	(0.30, 2.39)	
9 - 15 hours	45.5	2.22	(0.90, 5.50)	
16 hours or more	14.3	0.44	(0.15, 1.36)	0.05
<b>Received counselling or medication for gambling in past 12 months</b>				
No	26.0	1.00		
Yes, but not now	38.1	1.75	(0.67, 4.61)	
Yes, currently	31.3	1.30	(0.42, 4.00)	0.50
<b>Regularly attended Gamblers Anonymous meetings in past 12 months</b>				
No	27.1	1.00		
Yes	30.4	1.17	(0.45, 3.08)	0.74
<b>Self-excluded from venues in past 12 months</b>				
No	36.7	1.00		
Yes, but not now	14.3	0.29	(0.06, 1.37)	
Yes, currently	18.6	0.40	(0.18, 0.87)	0.03
<b>Current or impending court or legal matters related to gambling</b>				
No	27.6	1.00		
Yes	36.4	1.50	(0.42, 5.38)	0.54
<b>Gambling motivation, coping score (Gambling Motives Questionnaire) (quartiles)</b>				
7 or less	26.9	1.00		
8 - 10	25.0	0.91	(0.29, 2.78)	
11 - 14	32.7	1.32	(0.47, 3.74)	
15 or more	26.8	1.00	(0.33, 3.02)	0.86
<b>Gambling motivation, enhancement score (Gambling Motives Questionnaire) (quartiles)</b>				
10 or less	24.5	1.00		
11 - 13	26.2	1.09	(0.42, 2.82)	
14 - 16	27.3	1.16	(0.42, 3.16)	
17 or more	29.4	1.29	(0.48, 3.44)	0.97
<b>Gambling motivation, social score (Gambling Motives Questionnaire) (quartiles)</b>				
6 or less	26.1	1.00		
7	33.3	1.42	(0.54, 3.71)	
8 - 9	30.8	1.26	(0.47, 3.39)	
10 or more	22.9	0.84	(0.32, 2.18)	0.79
<b>Alcohol use in past year (AUDIT)</b>				
Non-risky	24.3	1.00		
Risky	33.3	1.56	(0.75, 3.24)	0.23
<b>Drug use in past year (DAST)</b>				
No problems	26.7	1.00		
Low level of problems	38.9	1.75	(0.63, 4.86)	
Moderate/substantial level of problems	25.0	0.91	(0.23, 3.57)	0.55

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Tobacco use</b>				
Never	29.2	1.00		
Ex-smoker	9.5	0.26	(0.05, 1.20)	
Smoker	31.6	1.12	(0.54, 2.30)	0.17
<b>Self-rated health</b>				
Excellent	17.2	1.00		
Good	33.9	2.47	(1.03, 5.93)	
Fair/poor	34.0	2.47	(1.01, 6.07)	0.08
<b>Self-rated quality of life</b>				
Poor/very poor	15.6	1.00		
Neither poor nor good	28.8	1.52	(0.50, 4.68)	
Good	36.4	1.08	(0.37, 3.17)	
Very good	27.3	0.49	(0.13, 1.88)	0.28
<b>Psychological distress in past four weeks (Kessler-10)</b>				
No distress	18.4	1.00		
Moderate level of distress	30.0	1.91	(0.80, 4.53)	
High level of distress	37.1	2.63	(0.97, 7.11)	0.15
<b>General distress, anxiety score (Symptom Rating Test) (quartiles)</b>				
2 or less	13.5	1.00		
3 - 5	23.7	2.00	(0.67, 5.95)	
6 - 8	41.0	4.47	(1.61, 12.41)	
9 or more	38.2	3.98	(1.39, 11.43)	0.02
<b>General distress, depression score (Symptom Rating Test) (quartiles)</b>				
3 or less	13.0	1.00		
4 - 7	30.2	2.89	(0.98, 8.48)	
8 - 11	30.2	2.89	(0.98, 8.48)	
12 or more	43.8	5.19	(1.72, 15.68)	0.04
<b>General distress, inadequacy symptoms score (Symptom Rating Test) (quartiles)</b>				
3 or less	18.0	1.00		
4 - 5	22.7	1.34	(0.41, 4.40)	
6 - 8	30.8	2.02	(0.79, 5.19)	
9 or more	43.6	3.51	(1.42, 8.72)	0.05
<b>General distress, somatic symptoms score (Symptom Rating Test) (quartiles)</b>				
1	16.1	1.00		
2	35.0	2.80	(0.89, 8.77)	
3 - 6	28.0	2.02	(0.81, 5.05)	
7 or more	48.4	4.88	(1.84, 12.95)	0.02
<b>Belonging score (Interpersonal Support Evaluation List) (quartiles)</b>				
6 or less	42.1	1.00		
6.1 - 8	26.1	0.49	(0.16, 1.51)	
8.1 - 9	29.6	0.58	(0.20, 1.65)	
9 or more	20.0	0.34	(0.14, 0.82)	0.12
<b>Appraisal score (Interpersonal Support Evaluation List) (quartiles)</b>				
5 or less	28.6	1.00		
6 - 8	37.8	1.52	(0.53, 4.37)	
9 - 11	30.2	1.08	(0.38, 3.09)	
12 or more	21.6	0.69	(0.24, 1.98)	0.43
<b>Tangible social support score (Interpersonal Support Evaluation List) (quartiles)</b>				
6 or less	51.5	1.00		
7 - 9	15.2	0.17	(0.05, 0.54)	
10 - 11	34.4	0.49	(0.18, 1.34)	
12 or more	19.1	0.22	(0.09, 0.56)	0.003
<b>Anger score (Buss-Perry Aggression Questionnaire) (quartiles)</b>				
3.5 or less	12.2	1.00		
4 - 6	20.5	1.85	(0.56, 6.07)	
6.5 - 10	29.8	3.05	(0.99, 9.41)	
10.5 or more	56.3	9.26	(2.88, 29.74)	0.0007
<b>Hostility score (Buss-Perry Aggression Questionnaire) (quartiles)</b>				
3 or less	19.5	1.00		
4 - 7	27.3	1.55	(0.56, 4.28)	
8 - 10	30.2	1.79	(0.65, 4.91)	
11 or more	36.4	2.36	(0.83, 6.73)	0.44



Variable	%	Odds Ratio	(95% CI)	p-value
<b>Impulse score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
7 or less	8.9	1.00		
8 - 11	26.8	3.76	(1.09, 12.96)	
12 - 16	33.3	5.13	(1.55, 17.00)	
17 or more	48.5	9.65	(2.81, 33.10)	0.004
<b>Goals score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
9 or less	14.0	1.00		
9.5 - 12	33.3	3.07	(1.07, 8.84)	
12.5 - 16.5	32.4	2.95	(1.03, 8.46)	
17 or more	36.6	3.54	(1.28, 9.84)	0.08
<b>Strategies score (Difficulties in Emotion Regulation Scale) (quartiles)</b>				
10 or less	13.0	1.00		
11 - 15	36.8	3.89	(1.32, 11.47)	
16 - 22	18.2	1.48	(0.47, 4.68)	
23 or more	50.0	6.67	(2.27, 19.60)	0.001
<b>Partner/ex-partner manages respondent's money</b>				
No	27.3	1.00		
Yes	33.3	1.33	(0.50, 3.55)	0.56
<b>Being a victim of partner/ex-partner violence (excl. financial violence)</b>				
No	8.9	1.00		
Yes	70.0	23.80	(9.80, 57.81)	<0.0001
<b>Financial violence - Taken anything from partner/ex-partner purse/wallet without permission</b>				
No	24.2	1.00		
Yes	66.7	6.28	(2.01, 19.57)	0.002
<b>Financial violence - Taken anything from partner/ex-partner bank account without permission</b>				
No	25.3	1.00		
Yes	70.0	6.88	(1.70, 27.91)	0.007
<b>Being a victim of any financial violence by partner/ex-partner</b>				
No	25.0	1.00		
Yes	42.9	2.25	(0.97, 5.23)	0.06
<b>Any financial violence perpetration to partner/ex-partner</b>				
No	21.4	1.00		
Yes	66.7	7.33	(2.87, 18.77)	<0.0001
<b>Violence victim - Been insulted or talked down to by partner/ex-partner</b>				
No	13.6	1.00		
Yes	75.7	19.76	(7.97, 49.02)	<0.0001
<b>Violence victim - Been screamed or cursed at by partner/ex-partner</b>				
No	9.6	1.00		
Yes	72.3	24.73	(10.14, 60.30)	<0.0001
<b>Mental health issue in partner/ex-partner in past 12 months</b>				
No	27.2	1.00		
Yes	50.0	2.68	(0.74, 9.75)	0.13
<b>Alcohol issue in partner/ex-partner in past 12 months</b>				
No	24.7	1.00		
Yes	66.7	6.11	(1.46, 25.64)	0.01
<b>Drug issue in partner/ex-partner in past 12 months</b>				
No	25.0	1.00		
Yes	75.0	9.00	(1.74, 46.47)	0.009
<b>Strengths and Difficulties Questionnaire - Hyperactivity</b>				
Normal	25.2	1.00		
Borderline or abnormal	58.3	4.16	(1.25, 13.91)	0.02
<b>Strengths and Difficulties Questionnaire - Emotional symptoms</b>				
Normal	24.1	1.00		
Borderline or abnormal	81.8	14.14	(2.92, 68.57)	0.001
<b>Strengths and Difficulties Questionnaire - Conduct problems</b>				
Normal	24.3	1.00		
Borderline or abnormal	62.5	5.19	(1.18, 22.83)	0.03
<b>Strengths and Difficulties Questionnaire - Peer problems</b>				
Normal	23.6	1.00		
Borderline or abnormal	53.3	3.71	(1.25, 10.99)	0.02
<b>Strengths and Difficulties Questionnaire - Total score excluding prosocial behaviour</b>				
Normal	23.9	1.00		
Borderline or abnormal	58.3	4.46	(1.33, 14.98)	0.02

Variable	%	Odds Ratio	(95% CI)	p-value
<b>Victorian Problem Gambling Family Impact score (quartiles)</b>				
18 or less	12.8	1.00		
19 - 31.5	21.1	1.81	(0.54, 6.14)	
32 - 45	35.0	3.66	(1.17, 11.47)	
45.5 or more	45.7	5.73	(1.81, 18.09)	0.01

## **APPENDIX 6: PROBLEM GAMBLING AND FAMILY VIOLENCE QUESTIONS**

### ***Problem Gambling Severity Index***

Thinking about the last 12 months...

- a. Have you bet more than you could really afford to lose?
- b. Have you needed to gamble with larger amounts of money to get the same feeling of excitement?
- c. When you gambled, did you go back another day to try to win back the money you lost?
- d. Have you borrowed money or sold anything to get money to gamble?
- e. Have you felt that you might have a problem with gambling?
- f. Has gambling caused you any health problems, including stress or anxiety?
- g. Have people criticised your betting or told you that you had a gambling problem?
- h. Has your gambling caused any financial problems for you or your household?
- i. Have you felt guilty about the way you gamble or what happens when you gamble?

Scored: 0 = never, 1 = sometimes, 2 = most of the time, 3 = almost always

### ***HITS scale and sexual abuse question***

#### **Victimisation**

In the last 12 months before you started counselling on [date], has a current or ex-partner or a family/whānau member...

- a. Physically hurt you?
- b. Insulted or talked down to you?
- c. Threatened you with harm?
- d. Screamed or cursed at you?
- e. Forced you to have sexual activities?

Scored: Yes/ No

#### **Perpetration**

In the last 12 months before you started counselling on [date], have you...

- f. Physically hurt a current or ex-partner or family/whānau member?
- g. Insulted or talked down to a current or ex-partner or family/whānau member?
- h. Threatened a current or ex-partner or family/whānau member with harm?
- i. Screamed or cursed at a current or ex-partner or family/whānau member?
- j. Forced a current or ex-partner or family/whānau member to have sexual activities?

Scored: Yes/ No

### ***Financial abuse questions***

- a. Do you manage your own money? (Yes/No)
  - i. If No, who manages your money?
- b. Do you have any concerns about your money, valuables or property going missing? (Yes/No)
  - i. If Yes, has anyone in your family/whānau/home taken anything from your purse or wallet without your permission? (Yes/No)
  - ii. If Yes, who is/was that person?
- c. Has anyone in your family/whānau/home taken anything from your bank account without your permission? (Yes/No)
  - i. If Yes, who is/was that person?
- d. Has anyone in your family/whānau/home ever asked you to sign papers about money, valuables or property that you did not understand or that you did not want to sign? (Yes/No)
  - i. If Yes, who is/was that person?
- e. Has anyone in your family/whānau/home forced you to gamble for them? (Yes/No)
  - i. If Yes, who is/was that person?