

Gambling harm experienced by children of parents who gamble

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Rationale for the study and research questions

A growing body of literature points to dysfunction in family environments affected by gambling problems, but relatively little research has addressed the specific impacts of parental gambling on children. This study sought to better understand the harm experienced by children that can be directly attributed to their parents' gambling. The study involved three stages. Stage 1 was a brief overview of the available empirical literature on specific harms experienced by children exposed to parental gambling problems. Building on this literature, Stage 2 involved an Australian national online survey of the harms to children of parental gambling (including problem gambling) from three perspectives: regular gamblers, adult children of regular gamblers and spouses of regular gamblers. Stage 3 involved qualitative interviews with a subsample of survey respondents who reported having experienced gambling harm due to their parent's gambling as a child. Five principal research questions were addressed:

1. What are the key areas of child wellbeing that are affected by parental problem gambling according to previous literature? (Stage 1)
2. Are gambling harms experienced by children exposed to parental gambling (including problem gambling) reported differently across three groups of respondents: (i) regular gamblers, (ii) (adult) children of regular gamblers and (iii) spouses of regular gamblers? (Stage 2)
3. To what extent does parental gambling severity and other family factors (parenting, problem gambling exposure) predict the degree and type of gambling harm experienced by children? (Stage 2)
4. In what ways does exposure to gambling harm in childhood relate to outcomes later in life, including general health and psychological wellbeing? (Stage 2)
5. How do individuals exposed to gambling harm due to parental gambling as a child perceive the link between parental gambling behaviours and their own wellbeing? (Stage 3)

Stage 1: overview of the literature

The overview of the literature used the UK Gambling Commission (2019) framework for measuring gambling-related harms among children and young people as a guide to organise published empirical evidence of the impacts of parental problem gambling on children. This framework is the only published document outlining the broad-ranging gambling harm specifically experienced by children. The overview of relevant literature responded to Research Question 1.

RQ1: What are the key areas of child wellbeing that are affected by parental problem gambling according to previous literature?

The UK framework was modified to better reflect the existing empirical evidence pertaining to key areas of child wellbeing: (1) intergenerational transmission of problem gambling; (2) financial problems; (3) psychological/emotional problems; (4) relationship problems (within the family); (5) family violence (a specific type of relationship problem); (6) behavioural problems; and (7) physical health problems. This section synthesised a large body of literature examining the

impacts of parental gambling on child wellbeing. The literature showed that the most commonly emphasised areas of impact relate to the intergenerational transmission of problem gambling; the psychological and emotional impacts; family relationship problems (most notably the child's relationship with the problem gambling parent); and exposure to family violence. The literature provided consistent evidence relating to the elevated likelihood of behavioural problems, mood disorders, and suicidal behaviours in children with parental gambling-related problems.

Stage 2: online survey of gamblers, adult children of gamblers and spouses of gamblers

The literature from Stage 1 informed the development of the Stage 2 online survey to examine specific gambling related harms experienced by children exposed to parental gambling, and their wellbeing as adults.

Method

The Stage 2 sample was recruited via convenience sampling from the general Australian population (62.2 per cent females, aged 18–85 years, mean age 46.8 years). These individuals were: (1) lifetime regular gamblers (50 per cent) who were asked to provide insights into how their gambling was affecting their children; (2) adults who had been children in households where parents were lifetime regular gamblers (56.3 per cent); (3) spouses of lifetime regular gamblers (34.7 per cent) who were asked to report on how their partner's gambling was affecting children in the household; and (4) people who had never gambled regularly nor had a parent or spouse who gambled regularly (14.3 per cent, these participants were used as a control group for the study). Participants were from every Australian State and Territory, but mostly from Victoria (36.7 per cent) then New South Wales (28.2 per cent), Queensland (17.0 per cent), Australian Capital Territory (6.9 per cent), South Australia (4.1 per cent), Tasmania (2.8 per cent), Western Australia (2.4 per cent) and the Northern Territory (2.0 per cent). Of the initial sample, 74 per cent completed the survey.

The Qualtrics online survey used for Stage 2 data collection included three sections: (1) gambling questions; (2) impact of parental gambling on child; and (3) current health and wellbeing of the participant. The analyses directly responded to Research Questions 2, 3 and 4. To examine specific harms experienced by adult children of gamblers directly attributable to parental gambling, the study used Alcohol's Harm to Children adaptation for gambling context (referred to as Gambling Harm to Children) to examine eight types of harm to children as a direct result of parental gambling: (i) physical abuse; (ii) verbal abuse; (iii) left unsupervised; (iv) not having enough money; (v) witnessing violence; (vi) child welfare call (child protection services or family welfare services contact); (vii) distress or upset; and (viii) problems in family relationship.

Key findings of Stage 2

The first part of the Stage 2 analyses addressed Research Question 2.

RQ2: Are gambling harms experienced by children exposed to parental gambling (including problem gambling) reported differently across three groups of respondents: (i) regular gamblers, (ii) adult children of regular gamblers and (iii) spouses of regular gamblers?

Comparing the responses on gambling harm to children items, there were some notable differences in the response patterns by the three respondent groups.

- Parents (both gamblers and spouses) from *households exposed to non-problem gambling* did not endorse any of the harm items relating to the impacts on children. Children from *households exposed to regular non-problem gambling* endorsed each type of harm but at a lower rate than those from *households with gambling problems*.
- *People with gambling problems* themselves reported the lowest rates of harm to children, followed by *spouses of people with gambling problems*. *Children exposed to parental gambling* reported the highest proportions of each type of gambling harm to children.
- The most common type of gambling harm to children reported by parents (gamblers and spouses of gamblers) was financial harm (e.g., not having enough money). The most common types of gambling harm reported by adult children of parents who gambled, however, was feeling distressed and having poorer family relationships

To address Research Question 3, a further multivariate analysis based on data from 190 participants who were (adult) children of regular gamblers (including both problem and non-problem gamblers) was then employed to examine the factors associated with specific types of gambling harm to children.

RQ3: To what extent does parental gambling severity and other family factors (parenting, problem gambling exposure) predict the degree and type of gambling harm experienced by children?

After adjusting for family of origin and demographic factors, logistic regressions showed that parental gambling severity and responsive parenting significantly predicted each type of gambling harm to children item with the following results.

- Lower parental problem gambling scores and higher responsive parenting scores were associated with a decreased likelihood of each gambling harm item with the exception of 'child welfare call' item.
- Being born in Australia (compared to born overseas) decreased the likelihood of two harm items: physical abuse and lack of money due to parental gambling.
- The presence of another gambling parent increased the likelihood of being left unsupervised due to parental gambling.

The final part of the Stage 2 analysis addressed Research Question 4 by examining the association between parental gambling exposure as a child and current wellbeing.

RQ4: In what ways does exposure to gambling harm in childhood relate to outcomes later in life, including general health and psychological wellbeing?

Data from 190 children of regular gamblers showed that, compared to participants who were not exposed to parental regular gambling as a child (control group), (adult) children exposed to parental gambling problems and (adult) children of regular gamblers who did not have gambling problems were more likely to report current depression, anxiety, Intimate Partner Violence (IPV) victimisation and their own problem gambling. In addition, (adult) children exposed to parental gambling in childhood were more likely to report current Post Traumatic Stress Disorder (PTSD) and poorer family functioning than the control group. Adjusting for family factors and participant demographics, parental gambling severity (as measured by NODS-Clip) did not predict any of the current wellbeing outcomes, however, experiences of specific types of gambling harms experienced by children did predict some wellbeing outcomes. Specifically, the results revealed that:

- Child welfare calls due to parental gambling significantly related to higher depression symptoms in children of regular gamblers when they were adults.
- Experiences of verbal and physical abuse due to parental gambling as a child were significantly related to higher PTSD symptoms in children of regular gamblers when they were adults.
- Maternal gambling (but not paternal gambling) as a child was significantly associated with higher rates of current IPV perpetration and gambling severity in adult children of regular gamblers (including problem gamblers).
- Responsive parenting was protective against negative impacts of gambling on children. It was also associated with decreased symptoms of current depression and PTSD and more positive family functioning in adult children of gamblers.

Stage 3 qualitative interviews

Building on Stage 2 findings about the negative impacts of parental gambling on child wellbeing, Stage 3 aimed to provide more in-depth understanding of the mechanisms between parental gambling and gambling harm experienced by children. Specifically, Stage 3 addressed the following research question:

RQ5: How do individuals exposed to gambling harm due to parental gambling as a child perceive the link between parental gambling behaviours and their own wellbeing?

Method

Participants for the qualitative interviews were recruited from the online survey and they were a subsample of 20 adult children of gamblers who had experienced harm as a direct consequence of their parent's gambling under the age of 18 years (as measured by Gambling Harm to Children scale). The participants were mostly female (80 per cent) and between 19 and 48 years of age,

(median 33 years). The Stage 3 interviews addressed Research Question 5, illuminating more detailed mechanisms between parental gambling behaviours and gambling harms experienced by the participants when they were children.

The telephone interviews asked questions about the most common ways in which parental gambling affects children, allowing participants to elaborate on own personal experiences about specific impacts of parental gambling. The types of themes related to the negative impacts of parental gambling the participants discussed were: (1) family conflict and child abuse; (2) parental absence; (3) financial impact; (4) psychological impact; (5) impact on child-parent relationship; (6) intergenerational transmission of problem gambling and; (7) educational impacts.

Key findings from Stage 3

Harmful levels of regular parental gambling was associated with reported family violence and parental conflict, child abuse and neglect, as well as family relationships, psychological wellbeing of the child and the mechanisms involved in intergenerational transmission of problem gambling in their families. The main patterns in the qualitative interviews included:

- **Family conflict, parental fighting, and child abuse** (both verbal and physical) were often directly attributed to gambling problems in the families. **Financial strain and absence from family responsibilities**, in particular, contributed to conflict and violence between parents.
- **Child abuse** (verbal, physical, emotional) appeared to be related to the short tempers and the aggressive nature of parents, which was exacerbated after gambling losses and stress due to financial strain.
- **Parental absence and leaving children without supervision** negatively contributed to the child-parent relationships and the psychological wellbeing of children. Moreover, some interviews revealed serious **safety concerns** caused by a lack of adult supervision or being left with unsafe adults or peers.
- Most participants had experienced **serious mental health problems** such as anxiety and PTSD and many reported feeling angry and confused about parental gambling as a child and those feelings had grown stronger towards adolescence and early adulthood.
- Most participants emphasised the **financial impact of parental gambling**, such as living in poverty, missing out on educational activities and materials, and nutritious food, but reported that parents would always have money to gamble. These financial impacts would **translate into other problems** including housing instability, a loss of the family home or livelihood, where non-gambling parents and children were left to manage without support from the gambling parent.
- Participants also reported negative impacts of parental gambling on their **education and career pathways**, with some reporting having to drop out from school to look after siblings and earn money to keep the family home.
- Protective relationship with non-gambling parents and siblings buffered some of the negative impacts of parental problem gambling, however, many **participants had taken on the responsibilities of parenting** including family finances, household chores, and looking after younger siblings.

- Some of the important **interventions or supports** that the participants believed would have helped them as children included having gambling venues take more responsibility for the wellbeing of their patrons and the potential impact on families; professional support for the non-gambling parent; organised activities for children outside the family home; and the presence of a safe adult with whom they could confide.

Summary and implications

The current study found that parents and children identified different patterns and degree of harm to children caused by parental problem gambling: parents reported lower incidents of harm and most commonly focused on the financial impacts whereas children reported higher incidents of harm, and mainly focused on the psychosocial impacts of parental problem gambling. The analysis of the data on adult children of gamblers showed that more severe parental gambling problems were associated with greater extent of all types of gambling harm. Adult children exposed to parental gambling also reported more current mental health problems compared to participants who had not been exposed to parental gambling. Further, the analysis confirmed that these mental health problems were related to specific types of harm as a result of parental problem gambling, particularly verbal and physical abuse and child welfare calls. Current mental health, however, was not related to parental problem gambling severity, after adjusting for demographic and family factors. Responsive parenting appeared to buffer some of the harmful effects of parental gambling to participants' current wellbeing. Qualitative interviews also illustrated the complex family dynamics related to parental problem gambling that were characterised by high levels of economic disadvantage, family conflict, trauma, various forms of abuse and neglect.

Finally, parental problem gambling severity negatively predicted offspring problem gambling severity. Adult children of gamblers who had experienced emotional distress and relationship problems due to their parental gambling reported particularly low gambling severity for themselves. The qualitative interviews provided further insights into this familial pattern: adult children of gamblers who had experienced severe psychosocial impacts of parental gambling were 'put off' by gambling as they did not want to expose their own spouses and children to similar adversities they had experienced as a child. These results suggest that being exposed to severe psychosocial consequences of parental gambling may act as a deterrent against problematic gambling behaviours.

The current study highlights the need for more consistent approaches to the assessment and treatment of children in families where gambling is a problem. Current evidence specifically warrants more systematic identification of psychosocial wellbeing of children in problem gambling families and provision of early and targeted interventions and catering for parenting needs. In addition, raising public awareness about gambling harm on children could be used to engage more parents into treatment. The results from the current study are consistent with previous research showing that non-gambling spouses need a wide range of supports to minimise the impact of parental gambling on children.

There is a need for better service coordination to address the harm from parental problem gambling on children: family welfare services should have access to education and tools to identify and address parental problem gambling in families, particularly in the presence of other wellbeing factors such as family violence, mental health problems and other addictions. A high level of integration of services encompassing assessment, referral, intervention, and post-intervention support can be used to promote better outcomes for children living in problem gambling families. The main limitations of the study include a small non-representative sample

and reliance on historical self-report data, however using retrospective methodology is widely accepted and used in research on adverse childhood experiences.

Conclusion

The current project presents one of the few empirical studies focusing on the broad-ranging correlates and impacts of parental problem gambling on their children. The current study provides a comprehensive overview of the main areas of wellbeing affected by parental problem gambling from the perspectives of the parents and children exposed to problematic gambling. It shows the complex nature of negative family dynamics related to problem gambling but also highlights multiple opportunities for supports and intervention that may improve the wellbeing of families and children exposed to gambling harm.

Background literature review (Stage 1)

Gambling-related harm

Problem gambling is a low-prevalence psychiatric condition with an average 12-month prevalence rate of 0.1 to 5.8 percent internationally over the past decade (Calado & Griffiths, 2016). The 2018-2019 Victorian Prevalence Study (Rockloff, Browne, Hing et al., 2020) revealed a problem gambling rate of 0.7 per cent, a moderate-risk gambling rate of 2.4 per cent, and a low-risk gambling rate of 6.7 per cent. Many more people, however, are negatively impacted by the behaviour of problem and at-risk gamblers (Goodwin, Browne, Rockloff & Rose, 2017). In Victoria, it has been estimated that 6.1 per cent of people have been adversely affected by someone else's gambling in the past 12 months (Rockloff et al., 2020). Negative impacts of problem gambling include financial impacts, damage to relationships and health, emotional and psychological distress, adverse effects on education and work, high levels of conflict and poor relationship functioning in families where there are gambling problems (Bellringer, Fa'amatuauiui, Taylor et al., 2013; Dowling, Suomi et al., 2016; Dowling, Smith & Thomas, 2009; Hodgins, Shead & Makarchuk, 2007; Kalischuk, Nowatzki, Cardwell, Klein & Solowoniuk, 2006; Langham, Thorne, Browne et al., 2015; Schluter, Bellringer & Abbott, 2007).

Family impacts of gambling

Given the high burden of gambling harm on individuals, it is not surprising that the household environments of people with gambling problems are characterised by high levels of anger and conflict, a lack of commitment and support, little direct expression of feelings, poor communication, neglect of family, lies and deception, confusion of family role and responsibilities and decreased participation in social activities (Dowling et al., 2009; Kalischuk et al., 2006). These family environments are comparable to those of people with drinking problems (Ciarrocchi & Hohmann, 1989) even though the number of cases may be fewer. Similarly, the children of people with gambling problems are exposed to stressful living environments, including financial and emotional deprivation, physical isolation, inconsistent discipline, parental neglect/abuse and rejection, poor role modelling, family conflict, and reduced security and stability (Darbyshire, Oster & Carrig, 2001a). While there are no current national statistics of how many people who gamble are also parents, the figures reported in the 1999 Productivity Commission report suggest that there may be over 174 000 Australian children living within a problem gambling family and that about half of people with gambling problems also have dependent children (Darbyshire, Oster & Carrig, 2001b). In addition, nearly half of females and over one third of males presenting for treatment for problem gambling have dependent children (Crisp et al., 2004; Dowling, Suomi et al., 2016).

From the above literature, it is clear that families of people with gambling problems often experience dysfunction (Dowling, Suomi et al., 2016); however, research on the specific impacts of gambling on child wellbeing is almost non-existent. Dowling, Suomi et al. (2016) developed a specific measure for the family impacts of gambling and found that the most common negative impacts mentioned by family members of gamblers were a loss of trust (63 per cent), anger towards the gambler (61 per cent), depression or sadness (59 per cent), anxiety (58 per cent), distress due to gambling-related absences (56 per cent), reduced quality of time spent with the gambler (52 per cent), and a breakdown in communication (52 per cent). This study was not specifically designed to examine gambling impacts on children but it included interviews of parents about the impacts of gambling on their children: *"My children have gone without, there are unpaid debts, we never had the money to go away"* and *"It has changed the way I*

communicate with my two children. I'm less patient with them or I cut myself off from them after a gambling episode. Then, I isolate myself and lock myself in my bedroom".

Children are seen to be more affected by adult gambling losses than gambling adults themselves (Browne, Bellringer, Greer et al., 2017). Some research on concerned significant others of people with gambling problems reports correlates of parental gambling and child wellbeing including child emotional disturbances, child physical complaints and behavioural problems (Dickson-Swift et al., 2005; Hodgins, Shead & Makarchuk, 2007; Vitaro, Wanner, Brendgen & Tremblay, 2008). Evidence of gambling harm for children include various types of neglect, staying up late, losing sleep, missing school, being hungry, poor nutrition, and potential vulnerability to abuse through lack of adequate supervision (Browne, Langham, Rawat et al., 2016). Taken together, this evidence lays out a context and strong rationale for better understanding the specific mechanisms of harm between parental gambling and child-wellbeing.

Intergenerational transference of gambling

One well-known area of gambling harm is intergenerational transference of gambling, whereby children of gamblers develop gambling problems themselves (Dowling, Francis, Dixon et al., 2021; Dowling, Oldenhof, Shandley et al., 2018; Dowling, Shandley et al., 2016; Dowling, Shandley et al., 2017; Govoni, Rupcich & Frisch, 1996, Gupta & Derevensky, 1997; Saugeres, Thomas, Moore, & Bates, 2012). This parent-to-offspring transmission of problem gambling is often explained using a social learning model, in which children imitate the gambling behaviour of their parents (Dowling et al., 2021; Gupta & Derevensky, 1997, Hardoon & Derevensky, 2002). While the evidence strongly suggests that children exposed to parental gambling problems are at greater risk for problem gambling, the mechanisms through which the 'transmission' occurs is not clear. One possibility is that gambling itself leads to the transmission of problems, but it is also possible that there are other underlying factors (psychological, social, socio-economic, cultural or familial) that may explain why certain families experience problems with gambling across generations. For this reason, it is important to examine the presence of other co-morbidities (e.g., other forms of addiction, psychological difficulties) that coincide with problematic or higher risk gambling behaviour.

Child wellbeing in relation to parental problem gambling

In addition to intergenerational transference of gambling problems, empirical literature identifies other aspects of child wellbeing that are negatively affected by parental problem gambling. The UK Gambling Commission (Blake et al., 2019) developed a framework for measuring gambling-related harms among children and young people that identifies four main areas in which children are affected by gambling (their own or someone else's): (a) financial: living standards of family, attitudes to and concerns about money; (b) development: education, social and emotional functioning; (c) relationships: family, friends and the community, behaviour; and (d) health: physical, mental, emotional wellbeing. We use these major areas as a guide to organise existing literature and have adapted it slightly to better reflect the areas of child wellbeing that empirical research has addressed: (1) financial problems; (2) psychological/emotional problems; (3) relationship problems (within the family); (4) family violence (a specific type of relationship problem); (5) behavioural problems; and (6) physical health problems.

Financial problems

Financial impacts are one of the most commonly reported negative impacts of gambling by the gambling individual, as well as their families, and they are likely to impact children directly. For example, Dowling et al. (2014) described relatively high rates of financial harm reported by 65 children of gamblers. Schluter and colleagues data (Schluter et al., 2007) on 983 New Zealand Pacific families showed that financial stress manifested as a lack of food and poor housing. Another study using data from 517 pathological gamblers showed that those with a problem gambling parent experienced higher financial stress compared to gamblers who did not have a problem gambling parent (Schreiber, Odlaug, Kim & Grant, 2009). Salonen, Alho and Castrén (2016) reported that 18 per cent of the children of problem gambling mothers and 10 per cent of the children of problem gambling fathers reported significant financial problems due to parental gambling. The above-mentioned studies typically report financial impacts in relation to other types of impacts (relational, psychological). Moreover, a typical pattern of financial problems for children was shown in qualitative studies where parents reported children living in poverty, a circumstance that was further exacerbated by parental gambling (Downs & Woolrych, 2010; Kalischuk, 2010; Landon et al., 2018; Mathews & Volberg, 2013; Wurtzburg & Tan, 2011).

Psychological/emotional problems

Previous literature shows mixed evidence about mental health problems in children exposed to parental problem gambling. In Afifi et al.'s (2020) study, adult children of people with gambling problems were 2.5 times more likely, and adolescent children 3.5 times more likely, to report current mental health problems compared with offspring of people without gambling problems. One large prospective study (Vitaro et al., 2008) showed significantly higher rates of depression in children exposed to parental gambling problems at the age of 16 and 23 compared with those not exposed. However, using different measures of depression as well as anxiety, Dowling, Smith et al. (2009) did not find higher rates of depression or anxiety in the children of treatment-seeking females with gambling problems compared to normative samples.

Other studies have drawn direct links between parental gambling problems and child mental health. For example, Salonen and colleagues (2016) found that as many as 36 per cent of adult children whose parents had gambling problems reported significant emotional distress, anxiety and depression due to parental gambling and that this was the most common gambling harm experienced by the children. Similarly, children of Gamblers Anonymous parents report feeling depressed (56 per cent) and sad (68 per cent), angry (70 per cent) and confused (59 per cent) about their parents' gambling (Lesieur & Rothschild, 1989). In another early study (Lorenz & Shuttlesworth, 1983), 13 per cent of spouses of people with gambling problems reported significant mental effects on their children due to parental gambling. Dowling et al. (2014) reported that children of treatment-seeking people with gambling problems were more likely to report emotional distress from gambling compared to other types of impact (financial, social, employment, relationship, physical health). Some evidence suggests an association between children's own addictions and exposure to problematic parental gambling, with about one-third of children whose parents had gambling problems exhibiting problematic drug and alcohol use (Jacobs et al., 1989).

Consistent with the quantitative studies, qualitative evidence shows evidence of 'pervasive loss' experienced by children, characterised by profound feelings of unhappiness, longstanding psychological problems and considerable distress stemming from parental gambling (Darbyshire et al., 2001a; Kalischuk, 2010; Landon, Grayson & Roberts, 2018; Mathews & Volberg, 2013; Patford, 2007, Wurtzburg & Tan, 2011).

Previous studies also show robust evidence of the relationship between parental problem gambling and child suicidal behaviours. Jacobs and colleagues' study, which examined 52 offspring of people with gambling problems, found that as many as 12 per cent of these children had attempted suicide (Jacobs, Marston, Singer et al., 1989). Similarly, Lesieur and Rothchild (1989) reported 10 per cent of children of Gamblers' Anonymous (GA) parents were at risk for suicide. Lloyd et al. (2016) found that gamblers with a problem gambling parent were more likely report a history of self-harm than gamblers with a non-gambling parent. Mann et al. (2017) showed that 784 parents with gambling problems were more likely to report that their children had attempted suicide compared to parents who did not have gambling problems.

Relationship problems

A number of studies have examined the impact of parental problem gambling on family relationships. Some of these studies have employed standardised scales to measure family functioning in families where there is problem gambling, with mixed results. Black et al. (2012) measured family functioning with the McMaster Family Assessment Device (Epstein, Baldwin & Bishop, 1983) and found that family functioning was twice as likely to be rated as 'unhealthy' in problem gambling families compared to non-problem gambling families. Similarly Dowling, Smith et al. (2009) employed the Family Environment Scale (Moos & Moos, 1994) and reported that parents in problem gambling families scored significantly lower on family cohesion, independence and achievement orientation compared to normative samples. In a subsequent study by Dowling, Rodda et al. (2014), children of treatment-seeking gamblers ranked gambling-related relational and social harms as the second and fourth highest gambling-related harms.

A number of studies show that relational problems related to problem gambling in families with children can also lead to family break down or other issues within the family system. Hing, Bree, Gordon, and Russell (2014) reported that 14 per cent of Indigenous adult gamblers had lost contact with their children as a result of family break up due to gambling problems. Jacobs et al., 1989 showed that children with problem gambling parents experienced almost twice the incidence of broken homes caused by separation or the death of a parent before the age of 15 years, and much higher rates of unhappy teen years compared to children with non-gambling parents. Salonen et al. (2016) reported that a large proportion of adult children of people with gambling problems (PG) (25 per cent if maternal PG; 15 per cent if paternal PG) reported significant current relationship and interpersonal dysfunction due to their parent's gambling.

Qualitative data have also revealed poor quality relationships between the gambling parent and children (Dowling, Suomi, Jackson & Lavis, 2016; Downs & Woolrych, 2010; Eby et al., 2016) and that the children exposed to parental gambling problems commonly experience a significant loss of parental attention and affection, general insecurity and chaotic families (Kalischuk, 2010; Landon et al., 2018; Mathews & Volberg, 2013, Wurtzburg & Tan, 2011). A lack of time with children as a result of parental gambling problems is a specific harm towards children (Lorenz & Yaffee, 1988; Lorenz & Yaffee 1989; Corney & Davis, 2010). Illustrating a similar pattern, Li, Browne, Rawat et al. (2017) reported that people with gambling problems were more likely to neglect their children's needs and leave them unsupervised than people without gambling problems.

Family violence

One the most severe consequences of gambling is the high rates of family violence in the families of people with gambling problems (Afifi et al. 2010; Dowling, Jackson et al., 2014; Dowling, Ewin, Youssef et al., 2018; Dowling, Oldenhof, Shandley et al., 2018; Dowling, Suomi, Jackson & Lavis, 2016; Dowling et al., 2019; Du Preez, Bellringer, Pearson et al., 2018; Suomi, Jackson, Dowling

et al., 2013; Suomi, Dowling, Thomas et al., 2019; Korman, Collins, Dutton et al., 2008; Muelleman et al., 2002). Of all forms of family violence related to gambling, intimate partner violence (IPV) is the most thoroughly documented. Dowling, Suomi, Jackson et al.'s (2016) systematic review on IPV and problem gambling revealed a significant relationship between problem gambling and both victimisation and perpetration of family violence. The review included a series of meta-analyses showing that over one-third of people with gambling problems report being victims of physical IPV (38 per cent) or perpetrators of physical IPV (37 per cent); and that problem gambling was over-represented in perpetrators of IPV (11 per cent). More recently, Hing and colleagues (2020) examined the relationship between gendered IPV and problem gambling from the victims and survivors' perspective using qualitative methodology. While many women included in the study were mothers, the study did not specifically report on the impacts of co-occurring problem gambling and IPV on dependent children. There may be potentially serious child welfare implications of problem gambling, given the harmful consequences of children witnessing or being a victim of interpersonal violence (Jaffe, 2018).

A growing body of research also shows high rates of child abuse and/or perpetration of violence against children in families of exposed to parental gambling problems (Afifi, Salmon, & Garcés, 2020; Bland, Newman, Orn & Stebelsky, 1993; Dowling et al., 2018; Dowling et al., 2014; Du Preez et al., 2018; Landon et al., 2018; Lesieur & Rothschild, 1989; Lorenz & Shuttlesworth, 1989; Suomi et al., 2019). For example, it has been reported that problematic and pathological gamblers are twice as likely to perpetrate child abuse than non-problematic gamblers (Afifi et al., 2010; Dowling et al., 2018). Of the studies that report rates of child abuse, the lifetime perpetration rates of child abuse by parents with gambling problems range from 17–43 per cent (Afifi et al., 2010; Dowling et al., 2018; Lesieur & Rothschild, 1989; Lorenz & Shuttlesworth, 1983), and the past year perpetration rates range from 7 per cent to 18 per cent (Palmer Du Preez et al., 2018; Dowling, Jackson et al., 2014; Suomi et al., 2019).

Behavioural problems

Behavioural problems among children exposed to parental gambling problems are common. Lorenz and Shuttlesworth (1983) found that 25 per cent of children whose parents had gambling problems exhibited significant behavioural or adjustment problems such as absconding, committing crime and engaging in drug, alcohol, or gambling-related activities. In a longitudinal study of 468 children, parents, and grandparents, Carbonneau, Vitaro, Bredgen and Tremblay (2018) measured child behavioural problems with parent-ratings of hyperactivity/impulsivity and inattention drawn from the Canadian National Longitudinal Study of Children and Youth (Statistics Canada, 1995). Current parental problem gambling was related to current inattention/hyperactivity in children, and grandparent problem gambling was related to parent hyperactivity/impulsivity in their childhood. Another longitudinal study reported that children whose parents had gambling problems were more likely to exhibit symptoms of conduct disorder at the ages of 16 and 23 than children whose parents did not have gambling problems (Vitaro et al., 2008). This study further found that ineffective parenting mediated the relationship between parental problem gambling and child conduct problems. Using a 30-item Behaviour Problem Index (BPI; Peterson & Zill, 1986), Momper and Jackson (2007) and found that maternal problem gambling was predictive of behaviour problems only in the children of mothers who received less social support from family members. There are conflicting results, however, with Dowling et al. (2018), not finding elevated levels of externalising behaviours using the Child Behavioural Checklist (CBCL; Achenbach & Edelbrock 1983) in the children of women with gambling problems, compared to a normative sample.

Physical health problems

Impacts of parental problem gambling on child physical health have rarely been addressed. Studies report that about 20 per cent of children whose parents have gambling problems suffer from physical health problems (Lorenz & Yaffee, 1989) and that these children are two-to-three times more likely to report a physical health problem than children whose parents do not have gambling problems (Afifi et al., 2020). Stevens and Bailie (2012) specified that scabies and ear infections, in particular, were related to parent's problem gambling and that this may relate to a general neglect of a child's needs. Finally, Dowling, Rodda et al. (2014) revealed that physical health problems were ranked as the least common direct negative impact of parental problem gambling.

Areas of child wellbeing negatively affected by parental gambling

Existing literature highlights the different types of gambling harm experienced by children of gamblers as they have been reported by three types of informants: gamblers, children and spouses of gamblers. Figure 1 below summarises all areas of child wellbeing that have been linked to parental gambling in empirical studies. We identified no studies that examined each of the areas of harm to children simultaneously. In addition, many studies asked about impacts of parental gambling from parents but it is important to collect information directly from children given that underreporting and minimising the impact of adult behaviours on children by adults has been reported in gambling, alcohol and domestic violence literature (Dowling et al., 2020; Gilbert et al., 2009; Laslett et al., 2012). This overview of existing literature provided a rationale for developing methodology for an online survey and it provides a strong rationale to further examine gambling harm experienced by children of problem gambling parents across a wide range of domains and using multiple informants (both parents and children). The use of multiple informants is also supported by literature showing little concordance between gamblers and affected others in reporting gambling-related harms (Dowling et al., 2021). The current study builds upon earlier research using a methodological approach that captures the impacts of parental problem and non-problem gambling on children from three perspectives: 1) adult children of regular gamblers (including those with gambling problems); 2) parents who regularly gamble (including those with gambling problems); and 3) parents whose spouses regularly gamble (including those with gambling problems). The first group therefore provides insights into the experiences of people who have previously (as children) being exposed to parental gambling themselves, whereas the second and third groups relate to the perceived or inferred impact on children (i.e., another family member).



Figure 1: Areas of child wellbeing impacted by parental gambling identified in empirical literature.

Current study

Notwithstanding insights that have been obtained in the economic or psychological impacts of familial gambling and problem gambling, relatively little is known about gambling-related harm experienced by children attributed to parental problem gambling. Accordingly, the overarching aim of the current project is to better understand the ways children are affected by parental problem gambling. This aim was addressed in three stages, with more detailed research questions detailed below:

1. What are the key areas of child wellbeing that are affected by parental problem gambling according to previous literature? **(see Literature review [Stage 1])**
2. Are gambling harms experienced by children exposed to parental gambling reported differently across three groups of respondents: (i) regular gamblers, (ii) adult children of regular gamblers and (iii) spouses of regular gamblers? **(Stage 2)**
3. To what extent does parental gambling severity and other family factors (parenting, problem gambling exposure) predict the degree and type of gambling harm experienced by children? **(Stage 2)**
4. In what ways does exposure to gambling harm in childhood relate to outcomes later in life, including general health and psychological wellbeing? **(Stage 2)**

5. How do individuals exposed to gambling harm due to parental gambling as a child perceive the link between parental gambling behaviours and their own wellbeing? (**Stage 3**)

Approach

The current project combined quantitative and qualitative methodologies to capture the multiple domains of gambling harm experienced by children of gambling parents identified in the Stage 1 overview of the literature. The methodology and approach described in this chapter was approved by the Australian Catholic University Ethics Committee (#2020-34H). This chapter outlines the methodology for Stage 2: an online survey of gambling harm to children; and Stage 3: qualitative interviews of children exposed to parental gambling. A study reference group provided advice on the study design and conduct, and involved seven experts working in the field of gambling and child/family welfare in Australia and Canada, as well as three Lived Experience representatives (parents who gamble and children of parents who gamble) from Australia.

Methodology for the Online survey (Stage 2)

Participants and sampling

The study sample included 510 participants recruited via convenience sampling (see Recruitment) from the general Australian population (62.2 per cent females, aged 18–85 years, mean age 46.8 years). These individuals were: (1) lifetime regular gamblers (herein referred to as gamblers) (44.1 per cent); (2) adult children of lifetime regular gamblers (herein referred to as adult children of gamblers) (56.3 per cent); (3) spouses of lifetime regular gamblers (herein referred to as 'spouses') (34.7 per cent); and (4) people who had never gambled regularly nor had a parent or spouse who gambled regularly (14.3 per cent: these participants were used as a control group for the study although we only used the control group to describe the sample and not for the main analysis (see Measures for more details on these groups)). Regular gambling was based upon participation in continuous gambling activities (EGMs, wagering, casino gaming) at least once per week. As shown in Figure 2, there was a significant overlap between the three gambling respondent groups: 144 (28.2 per cent) participants endorsed two of the respondent groups and 69 (13.5 per cent) endorsed all three respondent groups.

Participants were from every Australian State and Territory, but mostly from Victoria (36.7 per cent) then New South Wales (28.2), Queensland (17.0), Australian Capital Territory (6.9 per cent), South Australia (4.1 per cent), Tasmania (2.8 per cent), Western Australia (2.4) and the Northern Territory (2.0 per cent). Of the initial sample, 377 participants (74 per cent) completed the whole survey while the remainder completed a portion of the survey. The sample breakdown of those who completed the whole survey was similar to those in the whole sample (43.8 per cent gamblers; 57.6 per cent child of a gambler; 37.1 per cent spouse of a gambler; 12.9 per cent with no own parent or spouse gambling).

Power analysis for the linear/negative binomial regressions using the adult children of gamblers sample (see Analytical Plan for Stage 2) indicated that at anticipated effect size 0.15 (medium), 0.8 statistical power with 8 predictors and $p < .05$ the minimum required sample size is 139. For the logistic regressions, the calculations are less simple. Normally 10:1 rule is recommended (Peduzzi et al., 1996), thus for the logistic regressions with up to eight predictors, minimum required sample size for adequate power is 80.

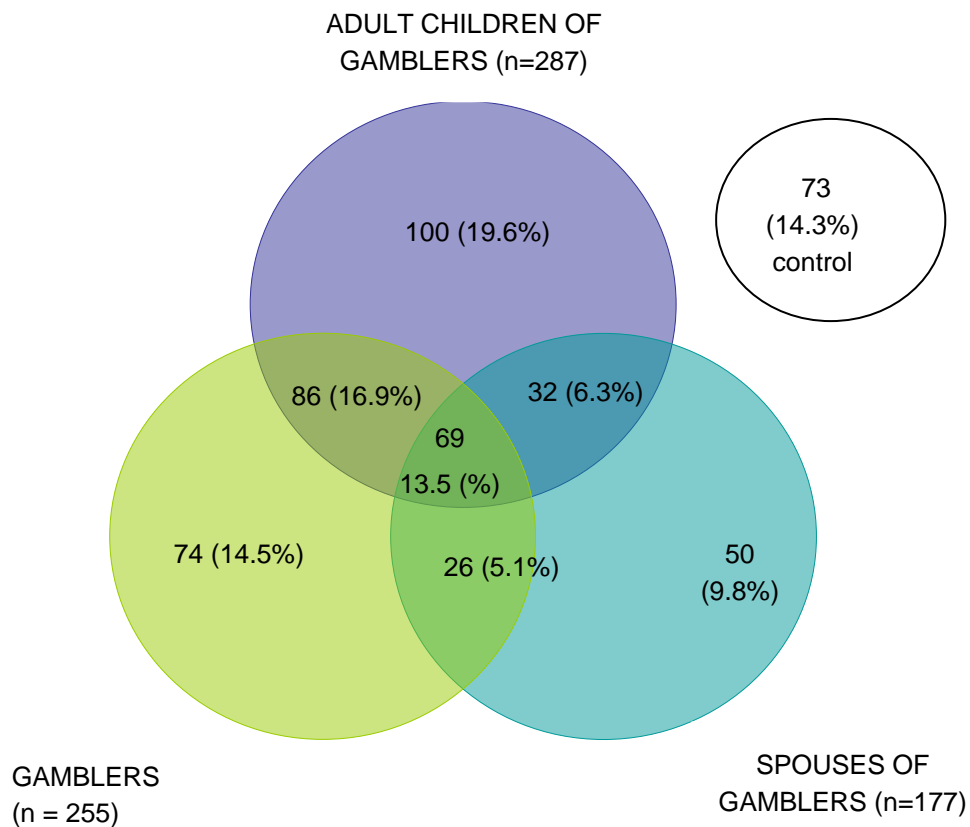
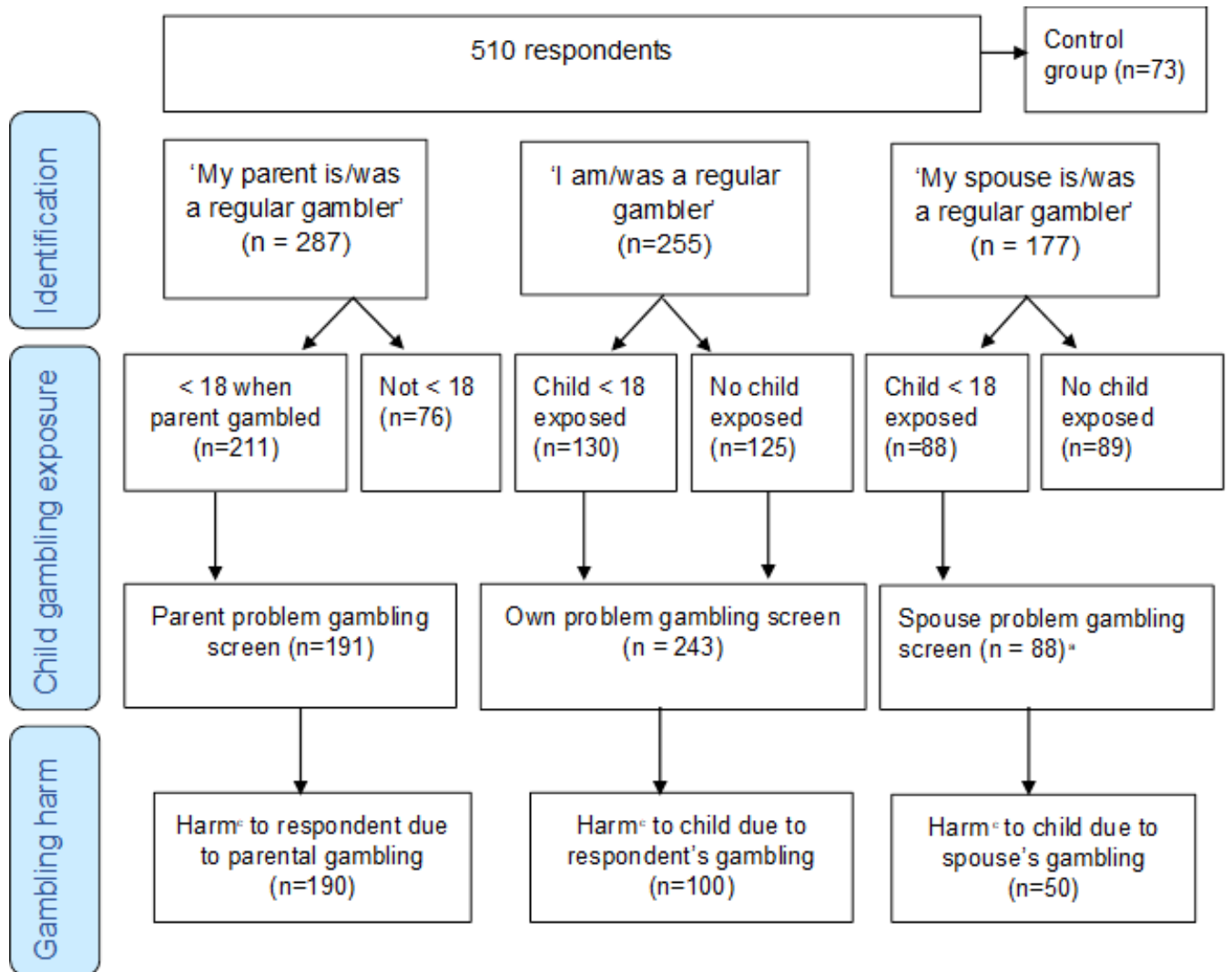


Figure 2: Sample breakdown for 510 participants.

Figure 3 shows the survey flow and sample sizes for each main part of the survey. The largest group were adult children of gamblers, followed by gamblers and spouses of gamblers. Each group was asked about parents/own/spouses regular gambling, and whether this gambling was ever at a problematic level through a gambling severity screening tool (NODS-CLiP for gamblers and gambling adaptation of CAST-6 for children and spouses of gamblers). Exceptions to this were 76 children of gamblers where parental gambling started after they had turned 18, and 89 spouses of gamblers where a child was not exposed to gambling. Each group that was screened for gambling severity was then asked about specific types of gambling harm due to parental/own/spouses gambling (Gambling Harm to Children). All participants answered questions about current wellbeing and demographics at the end of the survey.



Note: Samples of gambling parents, gamblers and spouses of gamblers are not mutually exclusive. (see figure 2)

^a spouses screened for problem gambling when child < 18 was exposed; ^b133 respondents stopped survey before wellbeing and demographic sections. ^c Harm refers to physical harm, verbal abuse, child left unsupervised, not enough money, witnessing violence, child welfare called, emotional distress or problems in the relationship between child and gambler.

Figure 3. Survey flow of study participants.

Recruitment

The *Gambling in Families* online survey (Qualtrics) was open from August 2020 until February 2021 for adults (18+) who lived in Australia. Recruitment via social media platforms such as Twitter and Facebook, as well as through the authors' professional networks and snowball sampling. No remuneration was given for participation in the online survey.

The online questionnaire was divided into three sections: (1) gambling questions; (2) impact of parental gambling on child; and (3) current health and wellbeing of the participant. In the first section, participants answered questions about regular and problem gambling in relation to their own, parents' or spouse's gambling. In the second section, participants answered questions about impacts of parental gambling on a child (from the perspective of either child or parent), including child exposure to gambling, gambling harm experienced by children, parent-child relationships, and family wellbeing. The third section asked questions about own current health and wellbeing as well as own demographics. Participants who were 'gamblers' answered child-related wellbeing questions in relation to the oldest child who had ever lived with them at the time of their regular gambling. Participants who were 'spouses' answered child-related wellbeing questions in relation to the oldest child who had ever lived with them and their spouse at the time of their spouses' regular gambling. As data was collected during the height of the COVID-19 pandemic and associated social distancing restrictions, we also included questions assessing the impact of the pandemic in the third section. Inclusion of these items was requested by the Human Research Ethics Committee.

A summary of survey questions for each participant group is shown in Table 1 in Appendix A, and full details are presented in Appendix B.

Analysis for Stage 2

A large proportion of the analyses that follow involve the presentation of descriptive statistics, including description of health and wellbeing of the participant groups and item-level analysis of responses to harm questions. Chi-squared tests were used to examine the association between categorical variables, Analysis of Variance (ANOVA) was used to compare metric variable score across categorical variables, and Spearman correlations were used to examine bivariate relationships in the data. A series of mixed logistic effects regressions were used to predict the presence of harm experienced by children, with predictor variables detailed, in line with the approach outlined in Rothman (1990). Cells containing less than five participants are suppressed for data security reasons (National Statistical Management Committee, 2007), Data analyses were conducted using SPSS version 24 and STATA version 14.2.

1. **Current wellbeing:** the first part of the analysis employed descriptive statistics to describe current wellbeing scores for the whole sample and across the three groups: (1) gamblers, (2) adult children of gamblers, and (3) spouses of gamblers. The analysis also examined the impact of problem gambling exposure to current wellbeing measures across the three groups. Chi-square and t-test analyses were used to indicate any significant differences between the groups and associations with problem gambling household exposure ($p < .05$).
2. **Harm to Children item analysis:** the second part of the analysis only involved data from gamblers and spouses of gamblers who were also parents, and children exposed to parental gambling. Responses of the three groups were compared on gambling harm to children items, parenting and child wellbeing variables. Chi-square and t-test analyses were used to indicate any significant differences between the groups and associations with problem gambling household exposure ($p < .05$).
3. **Predictors of gambling Harm to Children and current wellbeing.** the third part of the analysis reported on data collected from the adult children of gamblers who were under 18 years of age at the time of their parent's gambling.

- a. A series of logistic regression models were used to predict the presence of each type of gambling Harm to Children and negative binomial models predicted the overall level of gambling harm using the following predictors: Years of exposure to gambling, parent's gambling severity (CAST-6); parenting responsiveness scale (controlling for relevant demographics).
- b. A series of regression models were used to examine predictors of current wellbeing items that were related to parental problem gambling in the first part of the analysis. Negative binomial models were used to predict depression, anxiety and PTSD and lifetime problem gambling scores, linear models were used to predict family functioning, and logistic models were used to predict current IPV victimisation and perpetration, alcohol abuse and the use of illicit drugs. Predictors included gambling harm items and parenting responsiveness scale, controlling for relevant demographics.

Online survey (Stage 2)

This chapter reporting on the results of the Stage 2 online survey is structured around Research Questions 2-4:

RQ2: Are gambling harms experienced by children exposed to parental gambling (including problem gambling) reported differently across three groups of respondents: (i) regular gamblers, (ii) adult children of regular gamblers and (iii) spouses of regular gamblers?

RQ3: To what extent does parental gambling severity and other family factors (parenting, problem gambling exposure) predict the degree and type of gambling harm experienced by children?

RQ4: In what ways does exposure to gambling harm in childhood relate to outcomes later in life, including general health and psychological wellbeing?

The chapter begins by describing the sample characteristics used in the current study including description of the study flow and breakdown into three respondent groups: (1) regular gamblers; (2) children of regular gamblers; (3) spouses of regular gamblers. The first part of the analysis, responding to *Research Question 2*, reports on a subset of the sample who reported household exposure to a child under 18 years of age: (1) regular gamblers who are parents; (2) adult children of regular gamblers; (3) spouses of regular gamblers who are parents. The section reports on Gambling Harm to Children items, from the perspectives of parents (both gamblers and spouses) and children and compares patterns of perceived harm across the groups. The third part of the analysis, responding to *Research Questions 3 and 4*, reports on data from children of regular gamblers only and examines the predictors of the Gambling Harm to Children items and how different types of gambling harm experienced as a child are associated with their current health and wellbeing.

Description of the overall sample

Table 2 shows the descriptive statistics for the sample subgroups and overall. Participants were in their 40s, on average, for all respondent groups. Around 60 per cent of the full sample were female, although there were proportionally fewer females in the gambler group than in the adult children of gambler, spouses of gambler or control groups. Around 13 per cent of the full sample were born overseas, although this proportion was much higher in the control group than in any of the groups with exposure to gambling. A small proportion of the sample was from Aboriginal or Torres Strait Islander background and around half the sample had a bachelor's degree or higher. Around 70 per cent of the participants were employed prior to the COVID-19 pandemic, and the proportion who had lost their job since the pandemic was higher in the gambling exposed groups than in the control group. The control group contained a higher proportion of individuals who were married or in a de facto relationship than did the groups with exposure to gambling.

Table 2. Demographic characteristics of the sample

	Gamblers, % n=255	Adult children of gamblers, % n=287	Spouses of gamblers, % n=177	Control, % n=73	Overall, %
Age in years, M (SD)	42.82 (14.9)	43.0 (14.2)	46.7 (14.5)	46.5 (15.8)	43.6 (14.8)
Female	39.8	66.0	77.3	71.2	62.2
Born overseas	10.7	9.3	13.6	26.5	13.5
Aboriginal or Torres Strait Islander	4.1	3.2	4.1	2.0	2.7
Bachelor degree or higher	46.4	55.7	52.0	62.0	54.6
Employed before COVID	73.2	68.3	71.2	68.0	70.5
Lost job since COVID	6.3	5.9	6.8	2.7	5.5
Married/defacto	58.9	57.5	62.3	79.6	60.4

Note: proportion of missing data varies

Table 3 shows the breakdown of the sample into three groups who answered questions about child exposure to parental gambling. For the 'adult children of gamblers' group, subgroupings were created based on whether they had been exposed to parental problem gambling or not (i.e. non-problem gambling). For the parent respondents (gamblers and spouses) subgroupings were created on whether a child was exposed to parental non-problem and problem gambling. Table 3 shows the breakdown of the main groups of interest that reported on gambling harm experienced by children: (1) gamblers with dependent children; (2) adult children of gamblers; and (3) spouses of gamblers with dependent children.

Table 3. Sample breakdown according to problem gambling household exposure across the three respondent groups

Respondent group	Brief description of the respondent group	Child exposed to household PG n (%)	Child not exposed to household PG n (%)	Total n (%)
Gamblers	Participant gambled while living with a dependent child **	109 (85.2)	19 (14.8)	128 (100.0)
Adult children of gambler	Participant parent(s) gambled when they were children *	113 (59.2)	49 (40.8)	191 (100.0)
Spouses of gambler	Participant's spouse gambled while living with a dependent child***	70 (79.6)	18 (20.5)	88 (100.0)

*96 participants who were 18 years or older when their parent's gambling started were not asked the problem gambling items

**114 participants had no child exposed. 13 participants had missing data on the problem gambling items.

***89 participants where no child was exposed to spouse's gambling were not asked the problem gambling items

PG = problem gambling.

RQ2: Gambling harm experienced by children across the respondent groups

This section compares the patterns in responses to the Gambling Harm to Children items between the three respondent groups. It answers Research Question 2: *“Are gambling harms experienced by children exposed to parental gambling (including problem gambling) reported differently across three groups of respondents: (i) regular gamblers, (ii) adult children of regular gamblers, and (iii) spouses of regular gamblers?”*

Patterns of Gambling Harm to Children across the three respondent groups

All three groups responded to the Gambling Harm to Children items, with wording adapted to the perspective of each respondent group: regular gamblers (with and without gambling problems) endorsed harms to children due to their own gambling; adult children of regular gamblers (with and without gambling problems) endorsed harms to themselves or other children in the household due to their parent's gambling; and spouses of regular gamblers (who did and did not have gambling problems) endorsed harms due to their spouse's gambling.

As shown in Table 4, non-problem gamblers and spouses of non-problem gamblers did not endorse any of the harm items. Adult children of problem gamblers were significantly more likely to report each type of harm compared to children of non-problem gamblers where there were sufficient cell sizes to test. The most commonly reported types of harm reported by children of problem gambling parents were emotional distress and relationship problems. In contrast, most commonly reported types of harm to children reported by gamblers and spouses was 'not enough money' due to parental gambling. Spouses also reported high occurrences of emotional distress, relationship problems, and verbal abuse towards a child as a result of parental gambling. While the analysis did not statistically compare the harm items between gamblers, spouses and

children, adult children of gamblers reported the highest rates of all types maltreatment due to parental gambling: verbal and physical abuse, witnessing violence and being left unsupervised.

Table 4. Gambling Harm to Children reported by three respondent groups according to household problem gambling exposure status.

	Respondent groups					
	(1) Gambler		(2) Adult child of gambler		(3) Spouse of gambler	
	Has GPs n = 85 %	Does not have GPs n = 15 %	Parent has GPs n = 113%	Parent does not have GPs n = 77 %	Spouse has GPs n = 47 %	Spouse does not have GPs n=3 %
Did any of the following ever happen to a child as a result of your own/ parent's/spouse's gambling?						
Physical abuse	n<5	0	23.9	5.2	6.4	0
Verbal abuse	17.6	0	64.6	20.8	40.4	0
Left unsupervised	14.1	0	65.5	23.4	27.7	0
Not enough money	28.2	0	65.0	16.9	72.3	0
Witness violence	16.5	0	42.5	19.5	29.8	0
Child welfare call	4.7	0	9.7	n<5	4.3	0
Emotional distress	20.0	0	89.4	9.1	48.9	0
Relationship problems	14.1	0	74.3	16.9	46.8	0
Total gambling harm endorsements, M (SD)	1.19 (1.8)	0	4.41 (2.0)	1.13 (1.6)	2.75 (2.1)	0

Text is **bolded** where $p < .05$ within the respondent group. GPs= gambling problems. Cells with $n < 5$ are suppressed and not included in significance testing.

To examine whether child behavioural (externalising) and emotional (internalising) problems or parenting styles were associated with exposure to parental problem gambling, Table 5 shows the SDQ child internalising and externalising behaviour scores reported by gamblers and spouses of gamblers in relation to children who were exposed to problem and non-problem gambling. It also shows the hostile and consistent parenting styles reported by gamblers and spouses of gamblers. There were no significant differences between children's externalising, internalising or total SDQ scores between gamblers with and without gambling problems. Nor were there any observable differences in parenting styles.

Table 5. Child socioemotional wellbeing, and parenting, reported by gamblers and spouses.

	Respondent groups			
	(1) Gambler		(3) Spouse of gambler	
	Has GPs, M (SD) n = 58	Does not have GPs, M (SD) n = 12	Spouse has GPs, M (SD) n = 41	Spouse does not have GPs, M (SD) n = 3
Internalising difficulties	6.8 (3.1)	6.9 (4.4)	8.5 (3.6)	-
Externalising difficulties	7.2 (2.7)	6.3 (4.5)	7.1 (2.4)	-
Total difficulties	14.0 (5.4)	13.2 (8.8)	15.6 (5.1)	-
Consistent parenting	2.7 (0.5)	2.6 (0.6)	2.7 (0.7)	-
Hostile parenting	3.5 (1.8)	1.7 (1.5)	3.5 (1.6)	-

Note: there were no significant differences across the groups. GPs= gambling problems. Spouses where there were no gambling problems are suppressed due to small sample size.

RQ3: Predictors of Gambling Harm to Children items reported by adult children of gamblers

The remainder of this chapter will focus on the data reported by the 190 adult children of regular and problem gamblers who responded to 'Gambling Harm to Children' questions. This section answers Research Question 3: "*To what extent does parental gambling severity and other family factors (parenting, problem gambling exposure) predict the degree and type of gambling harm experienced by children*" and it examines the relationship between Gambling Harm to Children – items, parenting and gambling exposure variables, relationship with the gambling parent and demographics.

Table 6 shows the bivariate associations between the Gambling Harm to Children items, parenting and gambling exposure variables for the subsample of children of regular gamblers. It shows that all Gambling Harm to Children items were highly correlated with one another with the exception of the association between 'emotional distress' and 'child welfare calls'. It also shows that more severe parental gambling and less responsive parenting were associated with higher likelihood of each type of harm, with the exception of 'child welfare calls'. Paternal gambling (as opposed to maternal gambling) was associated with a lower likelihood of being left unsupervised, of distress and upset and of relationship problems. Having two parents who gambled (as opposed to just one) was associated with higher rates of 'being left unsupervised'.

Variables that were significantly associated ($p < .05$) with the Gambling Harm to Children items were then entered into a series of regression models to predict each type of harm (see Table 7). These models examined the relationship between each harm item and: 1) parental problem gambling severity; 2) parental responsiveness; 3) gambling parent's gender; and 4) whether the participant had two gambling parents or just one. After adjusting for the covariates (participant age, gender, country of birth, Aboriginal and Torres Strait Islander status), parental gambling severity predicted higher rates of each type of harm to children, with the exception of 'child welfare call': the higher the score on problem gambling severity, the more likely it was that the participant had experienced each type of harm. Another consistent predictor was parental responsiveness: participants with less responsive parents were more likely to report each type of harm with the exception 'child welfare call'. Compared to participants born overseas, those born in Australia were less likely to report physical harm and a shortage of money as a result of their parent's gambling. Having two parents who gambled (as opposed to just one) significantly predicted having been left unsupervised as a child. Aboriginal and Torres Strait Islander status was not related to the individual harm items but it predicted a greater number of harm items being reported.

Table 6: Bivariate correlations between gambling harm items, parenting and gambling exposure in family of origin

	1	2	3	4	5	6	7	8	9	10	11	12
1 Physical abuse	1.00											
2 Verbal abuse	.49*	1.00										
3 Left unsupervised	.21*	.38*	1.00									
4 Not enough money	.37*	.50*	.28*	1.00								
5 Witness violence	.65*	.60*	.25*	.35*	1.00							
6 Child welfare call(s)	.12	.24*	.23*	.22*	.28*	1.00						
7 Emotional distress	.34*	.51*	.37*	.53*	.32*	.14	1.00					
8 Child Parent relationship	.41*	.55*	.42*	.50*	.49*	.22*	.61*	1.00				
9 Parent PG severity	.28*	.49*	.45*	.54*	.30*	.19*	.77*	.62*	1.00			
10 Responsive parenting	-.33*	-.44*	-.35*	-.33*	-.36*	.03	-.36*	-.50*	-.30*	1.00		
11 Years exposed	.12	.02	.02	.08	-.04	-.36	.13	.05	.06	-.06	1.00	
12 Gambling parent gender*	-.02	-.14	-.27*	-.11	-.02	-.04	-.24*	-.17*	.32*	.13	.14	1.00
13 Two gambling parents	.11	.04	.22*	.03	.08	.00	.03	.05	.01	-.07	-.02	0.02

PG = problem gambling. *a positive value indicates increased likelihood of being a male parent

Table 7. Multivariate logistic regressions predicting Gambling Harm to Children items: Coefficients and [95% CIs].

Predictor variables	Count of harms	Physical abuse	Verbal abuse	Left unsuperv.	Not enough money	Witness violence	Child welfare	Emotional distress	Child-parent relationship
Parent gambling severity	0.24 [0.19, 0.29]	0.41 [0.11, 0.72]	0.48 [0.27, 0.69]	0.32 [0.13, 0.51]	0.63 [0.39, 0.86]	0.43 [0.20, 0.66]	0.32 [-0.18, 0.83]	1.06 [0.72, 1.39]	0.66 [0.42, 0.91]
Parental responsiveness	-0.29 [-0.39, -0.19]	-1.00 [-1.65, -0.35]	-0.80 [-1.27, 0.34]	-0.80 [-1.25, 0.35]	-0.56 [-1.02, -0.10]	-0.62 [-1.08, -0.17]	0.10 [-0.80, 1.00]	-0.58 [-1.18, 0.03]	-1.31 [-1.91, -0.71]
Participant age	-0.00 [-0.01, 0.01]	-0.01 [-0.05, 0.03]	0.01 [-0.02, 0.04]	-0.02 [-0.05, 0.01]	0.02 [-0.01, 0.05]	0.02 [-0.01, 0.05]	-0.05 [-0.13, 0.04]	0.00 [-0.04, 0.04]	0.01 [-0.03, 0.04]
Male participant (ref female)	-0.10 [-0.35, 0.16]	0.33 [-0.95, 1.61]	-0.45 [-1.54, 0.63]	-0.01 [-1.04, 1.02]	-0.52 [-1.62, 0.56]	-0.21 [-1.21, 0.83]	0.00 [-0.01, 0.01]	0.28 [-1.12, 1.69]	-0.18 [-1.39, 1.03]
2 gambling parents (ref 1 parent)	0.07 [-0.15, 0.28]	0.50 [-0.66, 1.66]	-0.34 [-1.33, 0.64]	1.32 [0.31, 2.33]	-0.08 [-1.10, 0.94]	-0.04 [-1.00, 0.93]	0.21 [-2.16, 2.58]	-0.14 [-1.52, 1.24]	0.09 [-1.05, 1.22]
Aboriginal & Torres Strait Islander (ref no)	0.48 [0.01, 0.94]	1.18 [-1.33, 3.69]	1.08 [-1.31, 3.47]	1.82 [-1.12, 4.77]	2.24 [-0.94, 5.42]	-1.06 [-1.03, 3.15]	-2.75 [-5.88, 0.38]	2.20 [-2.22, 6.61]	-0.50 [-2.81, 1.80]
Born in Australia (ref overseas)	-0.25 [-0.07, 0.58]	-1.71 [-3.35, -0.07]	-0.15 [-1.64, 1.33]	-0.23 -1.63, 1.17]	-1.61 [-3.15, 0.08,]	0.68 [2.12, 0.77,]	0.00 [-0.01, 0.01]	-1.24 [-3.18, 0.71,]	-1.51 [-3.22, 0.19]
Gambling father (ref mother)	0.05 [-0.15, 0.25]	0.56 [-0.54, 1.66]	-0.30 [-1.16, 0.56]	-0.27 [-1.12, 0.58]	0.50 [-0.40, 1.41]	0.73 [-0.17, 1.62]	1.12 [-1.01, 3.24]	-0.34 [-1.53, 0.85]	1.52 [-0.19, 1.28]
Prob > chi2	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.2259	0.0000	0.0000
Pseudo R2	0.1973	0.2281	0.2996	0.2626	0.3268	0.2029	0.1912	0.5612	0.4347

RQ 4: Relationship between gambling harm as a child and current wellbeing

The 190 participants with exposure to parental regular gambling as a child responded to questions relating to their current health and wellbeing questions. This section of the findings related to Research Question 4: “*In what ways does exposure to gambling harm in childhood relate to outcomes later in life, including general health and psychological wellbeing?*”. For participants who were exposed to parental regular gambling as children (0–17 years), it was possible to distinguish whether this exposure involved, or did not involve, parental *problem* gambling (Table 8). Chi-square analyses show that participants who were exposed to parental gambling problems as a child were more likely to report current PTSD symptoms and less likely to report ever gambling themselves compared with participants who were exposed to non-problematic gambling as a child. Participants exposed to parental problem gambling as a child also reported twice the rate of anxiety, depression, and higher rates of both IPV victimisation and perpetration compared to the control group. They were also around 50 per cent less likely to have gambling problems themselves than those whose parents had gambled at a non-problematic level.

Table 8: Current wellbeing of participants who endorsed exposure to parental regular gambling as children (<18 years) by problem gambling exposure status; **bolded** text indicates where children of gambler groups were significantly different to the *control group*.

	Participant exposed to parental regular and problem gambling as a child, % n = 98	Participant exposed to parental regular but non-problem gambling as a child, % n = 67	Control (participant not exposed to parental regular gambling as a child), % n = 58
Anxiety	40.8	31.3	17.2
Depression	31.3	32.8	12.1
Post Traumatic Stress Disorder	42.9	20.9	19.0
Health excellent/very good	31.6	25.4	44.8
Alcohol abuse	45.9	40.3	53.5
Smoking	25.5	44.8	17.2
Illegal drug use	11.2	19.7	15.5
Intimate partner violence vic.	42.9	31.3	18.2
Intimate partner violence perp.	25.5	25.0	12.1
Family functioning, M (SD)	2.6 (0.7)	2.8 (0.7)	3.0 (0.5)
Gambling problems	27.4	53.9	0.0
Past 12 months service use			
Mental health	41.2	37.3	22.8
Gambling help	5.2	10.6	0.0
Family relationships	12.4	n<5	n<5
General practitioner	74.5	68.7	65.5

Table 9 shows (for the subsample of 190 children of regular gamblers) the bivariate associations between participant current wellbeing and the Gambling Harm to Children items, parenting and gambling exposure. Current anxiety symptoms were associated with more reports of all gambling harm items with the exception of 'no money' and 'distress, upset' due to parental gambling. Higher levels of current depression symptoms were related to more physical abuse, witnessing violence and child welfare calls as a result of parental gambling. Current PTSD symptoms were associated with more reports of all eight gambling harm items. However, current general health or smoking were not related to any gambling harm items. Current alcohol abuse was associated with more child welfare calls, and current drug use was associated with higher reports of 'no money'. Being a victim of IPV was related to more verbal abuse, being left unsupervised, emotional distress and relationship problems due to parental gambling. IPV perpetration was related to more physical and verbal abuse, being left unsupervised, child welfare calls and emotional distress due to parental gambling. Higher family functioning scores were associated with lower levels of verbal and physical abuse, being left unsupervised and less relationship problems due to parental gambling. The likelihood of participants themselves having gambling problems was associated with lower levels of distress and relationship problems caused by parental gambling and less severe parental gambling. Having a male (as opposed to female) gambling parent was associated with lower likelihood of being left unsupervised and less distress and relationship problems due to parental gambling. Having two parents who gambled (as opposed to just one) was associated with higher likelihood of being left unsupervised due to parental gambling.

Table 9: Bivariate correlations between harm to children items, parental gambling exposure and current wellbeing outcomes reported by children exposed to parental gambling.

Due to parent's gambling, did you ever experience	Anxiety	Depression	PTSD	Health	Alcohol	Smoking	Drugs	IPV vict	IPV perp	Family function.	Own PG severity
Gambling Harm items											
Physical abuse	.23*	.17*	.33*	.13	.01	.02	-.04	.12	.17*	-.17*	-.00
Verbal abuse	.28*	.20*	.39*	-.09	-.07	.06	.02	.24*	.19*	-.27*	-.10
Unsupervised	.28*	.07	.24*	.05	.13	.12	.03	.22*	.23*	-.18*	-.02
No money	.16	.02	.20*	-.04	.09	.03	-.19*	.09	.06	-.06	-.11
Witness violence	.22*	.16*	.26*	-.08	-.01	.04	.00	.08	.15	-.27*	-.01
Child welfare call	.16*	.16*	.22*	-.10	.17*	.10	.05	.09	.18*	-.09	-.02-
Distress, upset	.10	.04	.24*	-.04	.01	-.01	-.09	.21*	.16*	-.09	-.22*
Relationship problems	.23*	.07	.28*	-.03	-.09	-.01	-.05	.28*	.14	-.24*	-.22*
Family factors											
Parent PG severity	.14	.02	.24*	.07	.03	-.06	-.12	.11	.06	-.12	-.26*
Responsive parenting	-.20*	-.20*	-.27*	.09	.11	-.06	-.04	-.29*	-.17*	.38*	.08
Parent gender ^a	-.19*	-.11*	-.11	.14	.09	.03	.07	-.16*	-.20*	-.13	-.06

*=p<.05; PG = Problem gambling. PTSD = Post Traumatic Stress Disorder. IPV vict= Intimate partner violence – victimisation. IPV perp = intimate partner violence - perpetration. ^aa positive relationship means higher likelihood of being a male parent.

Next, a series of multivariate regression models were used to predict current (adult) wellbeing outcomes with the Gambling Harms to Children items as independent variables (see Tables 10 and 11). Current wellbeing outcomes that were significantly related to the harm items in the bivariate models were used for the analysis: depression, anxiety, PTSD, alcohol abuse, drug use, IPV victimisation, perpetration and family functioning. The models show that, after adjusting for the covariates (respondent age, gender, Aboriginal and Torres Strait Islander status, born overseas), child welfare calls due to parental gambling predicted more current depression symptoms. Physical abuse and verbal abuse due to parental gambling as a child significantly predicted current PTSD symptoms. More responsive parenting was associated with less current depression and PTSD, and with better current family functioning. Having a female (as opposed to male) gambling parent was associated with more severe participant gambling, as well as more IPV perpetration. Of the covariates, higher levels of education were associated with lower levels of current alcohol abuse, and drug use and less severe participant gambling. Participants who were male reported more severe gambling in relation to themselves

Table 10: Multivariate Parental Gambling Related Predictors of Mental Health and Family Functioning of the Participants (**Bolded** Cells Indicate $p < .05$).

Predictor variables	Depression [95%CI]	Anxiety [95%CI]	PTSD [95%CI]	Family Functioning [95%CI]
1 Physical abuse due to parent. gambling	0.45 [-0.36, 1.25]	0.25 [-0.31, 0.81]	0.52 [0.02, 1.03]	-0.20 [-0.69, 0.30]
2 Verbal abuse due to parent. gambling	0.41 [-0.24, 1.05]	0.28 [-0.18, 0.74]	0.47 [0.03, 0.90]	-0.04 [-0.42, 0.35]
3 Left unsupervised due to parent. gambling	-0.23 [-0.73, 0.27]	-0.02 [-0.18, 0.74]	0.04 [-0.31, 0.40]	0.03 [-0.29, 0.34]
4 Not enough money due to parent. gambling	-0.29 [-0.92, 0.33]	0.06 [-0.39, 0.50]	0.08 [-0.36, 0.52]	0.29 [-0.07, 0.65]
5 Witnessed violence due to parent gambling	-0.19 [-0.93, 0.55]	0.10 [-0.52, 0.54]	-0.14 [-0.67, 0.38]	-0.17 [-0.61, 0.28]
6 Child welfare call due to parent. gambling	1.21 [0.13, 2.30]	0.36 [-0.36, 1.08]	0.31 [-0.30, 0.93]	-0.44 [-1.08, 0.20]
7 Distressed, upset due to parent gambling	-0.37 [-1.13, 0.39]	-0.34 [-0.87, 0.19]	-0.23 [-0.72, 0.26]	0.15 [-0.27, 0.58]
8 Relationship impact due to parent gambling	-0.17 [-0.83, 0.49]	0.16 [-0.35, 0.66]	-0.33 [-0.80, 0.14]	-0.10 [-0.51, 0.31]
Parent gambling severity	0.22 [-0.15, 0.20]	-0.10 [-0.13, 0.12]	0.02 [-0.09, 0.13]	0.00 [-0.09, 0.10]
Responsive parenting	-0.26 [-0.50, -0.01]	-0.11 [-0.29, 0.08]	-0.18 [-0.35, -0.02]	0.29 [0.14, 0.44]
Education (ref not finish high school)				
Finished high school	0.10 [-0.80, 1.00]	0.03 [-0.76, 0.70]	-1.08 [-1.90, -0.27]	0.06 [-0.52, 0.64]
Post school qual.	0.03 [-0.79, 0.84]	0.26 [-0.37, 0.89]	0.31 [-0.24, 0.86]	0.02 [-0.48, 0.52]
University degree	0.04 [-0.67, 0.76]	0.22 [-0.35, 0.79]	0.06 [-0.44, 0.56]	-0.06 [-0.52, 0.39]
Gambling parent is male (ref female)	-0.37 [-0.83, 0.09]	-0.34 [-0.68, 0.01]	-0.11 [-0.42, 0.21]	0.29 [-0.00, 0.58]
Participant is male (ref female)	0.21 [-0.27, 0.70]	-0.18 [-0.57, 0.21]	-0.12 [-0.51, 0.27]	0.03 [-0.28, 0.34]
Participant age in years	0.00 [-0.01, 0.02]	-0.00 [-0.12, 0.01]	-0.01 [-0.12, 0.00]	-0.00 [-0.01, 0.01]
Aboriginal & Torres Strait Islander (ref not)	-0.89 [-2.29, 0.52]	-1.75 [-3.38, -0.21]	-0.70 [-1.76, 0.35]	0.34 [-0.45, 1.06]
Model fit	Pseudo R ² = 0.03 Prob > chi ² = 0.59	Pseudo R ² = 0.06 Prob > chi ² = 0.06	Pseudo R ² = 0.09 Prob > chi ² = 0.001	R ² = 0.27 Prob > F = 0.0001

PTSD = post traumatic stress disorder.

Table 11: Multivariate Parental Gambling Related Predictors of Intimate Partner Violence and Addictive Behaviours of The Participants (**Bolded Cells Indicate p<.05**).

Predictor variables	IPV vic	IPV perp	Alcohol	Drugs ^a	Own gambling severity
1 Physical abuse	0.47 [-1.17, 2.10]	0.47 [-1.20, 2.15]	0.36 [-1.25, 1.98]	-0.40 [-2.56, 1.76]	0.01 [-1.34, 1.36]
2 Verbal abuse	1.26 [-0.07, 2.59]	0.47 [-0.95, 1.90]	-1.01 [-2.22, 0.21]	1.74 [-0.08, 3.58]	0.22 [-0.89, 1.33]
3 Left unsupervised	-0.25 [-0.81, 1.31]	0.72 [-0.41, 1.86]	0.77 [-0.27, 1.80]	0.75 [-0.65, 2.15]	0.72 [-0.10, 1.54]
4 Not enough money	-0.70 [-2.06, 0.67]	-0.43 [-1.75, 0.90]	0.35 [-0.80, 1.50]	-1.35 [-3.16, 0.46]	-0.39 [-1.48, 0.71]
5 Witnessed violence	-1.00 [-2.58, 0.67]	-0.40 [-2.07, 1.27]	-0.04 [-1.50, 1.40]	0.23 [-1.68, 2.15]	0.94 [-0.36, 2.23]
6 Child welfare call	0.72 [-1.44, 2.88]	1.21 [-0.92, 3.34]	1.31 [-1.25, 3.88]	-0.19 [-2.78, 1.47]	-0.40 [-2.27, 1.48]
7 Distressed, upset	0.05 [-1.44, 1.53]	1.47 [0.31, 3.25]	0.18 [-1.18, 1.53]	-1.15 [-3.16, 0.46]	-0.37 [-1.45, 0.71]
8 Relationship impact	-0.19 [-1.62, 1.25]	-0.59 [-2.15, 0.98]	-0.88 [-2.25, 0.50]	-0.65 [-2.78, 1.47]	-0.60 [-1.80, 0.60]
Parent gambling severity	-0.06 [-1.22, -0.11]	-0.37 [-0.62, 0.09]	0.16 [-0.14, 0.46]	-0.26 [-0.73, 0.21]	-0.14 [-0.37, 0.11]
Responsive parenting	-0.37 [-1.22, -0.11]	-0.18 [-0.72, 0.35]	-0.04 [-0.54, 0.45]	-0.51 [-1.19, 0.16]	0.10 [-0.30, 0.49]
Education (ref not finish high school[HS])					
Finished HS	-3.36 [-5.90, 0.83]	-0.94 [-4.42, 0.55]	-3.38 [-5.56, -1.20]	-2.24 [-4.50, 1.28]	-0.61 [-1.82, 0.59]
Post school qual.	-0.35 [-1.97, 1.27]	-0.95 [-2.56, 0.67]	-1.66 [-3.56, 0.24]	-2.99 [-5.09, -0.89]	-1.66 [-2.82, -0.50]
University degree	-1.63 [-3.12, -0.13]	-0.64 [-2.05, 0.77]	-1.85 [-3.63, -0.64]	-2.27 [-3.96, -0.57]	-1.46 [-2.45, -0.47]
Father gambling (ref mother)	-0.26 [-1.26, 1.02]	-1.13 [-2.15, -0.02]	0.54 [-0.39, 1.47]	0.05 [-1.19, 1.28]	-0.98 [-1.75, -0.22]
Male participant (ref female)	0.10 [-0.01, 0.06]	-0.14 [-1.26, 0.97]	0.55 [-0.42, 1.52]	0.91 [-0.39, 2.20]	1.53 [0.78, 2.28]
Participant age in years	0.02 [-0.01, 0.06]	0.02 [-0.01, 0.06]	-0.03 [-0.06, 0.00]	-0.01 [-0.06, 0.04]	-0.01 [-0.03, 0.02]
Participant ATSI (ref non-ATSI)	-0.19 [-3.00, 2.59]	0.06 [-2.64, 2.75]	1.39 [-1.35, 4.13]	-	0.13 [-1.37, 1.62]
Model fit	Pseudo R ² =0.03 Prob >chi ² =0.53	Pseudo R ² =0.16 Prob> chi ² =0.16	Pseudo R ² =0.17 Prob> chi ² =0.03	Pseudo R ² =0.22 Prob> chi ² =0.09	Pseudo R ² = 0.10 Prob > chi ² = .002

IPV-V = Intimate partner violence, victimisation; IPV_P = Intimate partner violence perpetration; ATSI = Aboriginal or Torres Strait Islander Background.

Summary of the online survey main findings

The analysis of the online survey data responded to Research Questions 2–4 and the main results of are summarised below.

Research question 2: *Are gambling harms experienced by children exposed to parental gambling (including problem gambling) reported differently across three groups of respondents: (i) regular gamblers, (ii) adult children of regular gamblers and (iii) spouses of regular gamblers?*

There were notable differences in patterns of harm reported by the three respondent groups relating to the eight Gambling Harm to Children items: (1) physical abuse; (2) verbal abuse; (3) left unsupervised; (4) not having enough money; (5) witnessing violence; (6) child welfare call; (7) distress or upset; and (8) problems in family relationship.

- Where gamblers and spouses were the respondents and gambling was not problematic, no Gambling Harm to Children items were endorsed. Children of non-problematic gamblers did endorse the harm items, but at a rate that was three-to-six times higher than when gambling was problematic.
- In households exposed to problem gambling, the *gamblers* themselves reported the lowest rates of harm to children, followed by *spouses*. *Adult children of gamblers* reported the highest incidents of each type of harm.
- Parents (both people with gambling problems and spouses) most commonly endorsed financial impacts (not enough money) of problem gambling on their children. Children however, most commonly reported feeling distressed and the negative impacts on family relationships as a result of their parent's problem gambling.

Research Question 3: *To what extent does parental gambling severity and other family factors (parenting, problem gambling exposure) predict the degree and type of gambling harm experienced by children?*

- Parental gambling severity and responsive parenting significantly predicted each type of gambling harm to children –item except for ‘child welfare calls’, controlling for demographic factors:
 - o More severe parental gambling increased, and more responsive parenting decreased the likelihood of each type of gambling harm items with the exception of ‘child welfare call’ item.
 - o Being born in Australia (compared to born overseas) decreased the likelihood of two types of harm due to parental gambling: physical abuse and lack of money.
 - o The presence of another gambling parent increased the likelihood of being left unsupervised due to parental gambling.

Research question 4: *In what ways does exposure to gambling harm in childhood relate to outcomes later in life, including general health and psychological wellbeing?*

- Compared to participants who were not exposed to parental regular gambling as a child:
 - o Children of *problem gambling parents* were more likely to suffer from current depression, anxiety, PTSD and IPV victimisation, own problem gambling and lower family functioning
 - o Children of regular *non-problem gambling parents* were also more likely to report current depression, anxiety, IPV victimisation and own problem gambling. They also reported twice the rate of own problem gambling compared to children of *problem gambling parents*.
- Bivariate associations show that current health and wellbeing of children of regular gamblers were significantly related to exposure to Gambling Harm to Children items, overall, while parental gambling severity was generally not, with few exceptions:

- General health and smoking status of adult children of gamblers was not related to parental gambling severity or harm items.
 - Exposure to more severe parental gambling was associated with more current PTSD symptoms and *less* severe gambling of the participant themselves.
 - Adult children of regular gamblers were also less likely to have gambling problems if they had experienced distress or relationship problems directly related to parental gambling as a child.
- Multivariate models predicting current wellbeing outcomes of children of regular gamblers showed that the following associations remained significant after adjusting for family factors and participant demographics:
- Child welfare calls due to parental gambling significantly predicted current depression symptoms
 - Verbal and physical abuse due to parental gambling significantly predicted current PTSD symptoms
 - Participants exposed to maternal gambling reported higher levels of current IPV perpetration and gambling severity
 - Responsive parenting significantly decreased the negative impacts of childhood exposure to gambling harm on adult children of gamblers. Responsive parenting was also associated with decreased symptoms of current depression and PTSD and more positive family functioning.

Qualitative interviews (Stage 3)

This chapter aims to answer the final research question 5: “*RQ5: How do individuals exposed to gambling harm due to parental gambling as a child perceive the link between parental gambling behaviours and their own wellbeing?*”

Methodology for Stage 3 qualitative interviews

Participants and sampling

A subsample of 20 participants who were exposed to gambling harm due to parental gambling as a child were recruited for qualitative interviews from the online survey participants. The inclusion criteria for the interviews was that the participant endorsed at least one Gambling Harm to Children item. The sample included 20 participants (90 per cent females, age 19–48 years, median 33 years) who had been exposed to gambling harm as a result of parental gambling, while they were under the age of 18 years. Seven (35.0 per cent) of the 20 participants also endorsed their own regular gambling and six (30.0 per cent) endorsed spousal regular gambling. Five (35.0 per cent) participants endorsed two of the respondent groups and four (20.0 per cent) endorsed all three.

Recruitment

Stage 2 participants who endorsed any of the Gambling Harm to Children items in relation to their parent's gambling were invited to the Stage 3 qualitative interviews. This was done through a single question in the online survey ascertaining whether the participant was willing to be contacted for further in-depth phone interviews about the impacts of parental gambling. Of the online survey participants who reported parental gambling and agreed to be contacted, 148 (58.0 per cent) reported any harm from their parent's gambling and 72 provided their contact details to be contacted for the interviews. We attempted to contact 38 of these participants, prioritising younger participants as they had more recent experience of parental gambling. The study team was able to complete 20 interviews within the study timeframe.

Interviews

The phone interviews ranged from 25 minutes to 128 minutes (average length 48 minutes) and participants were offered a \$50 shopping voucher as a small acknowledgment of their significant contribution to the study.

Analysis

With the exception of one interview in which handwritten notes were taken, the interviews were recorded (with the permission of the participants), transcribed and imported into NVivo v12 for qualitative analysis. The data were analysed using a dualistic technique of deductive and inductive thematic analysis (Saldana, 2016; Fereday & Muir-Cochrane, 2006; Roberts, Dowell, & Nie, 2019). Deductive approaches are based on the assumption that there are some principles that can be applied to the phenomenon in focus (e.g. impacts of parental gambling on children). We applied deductive model to the set of information provided by the participants, searching for consistencies and anomalies across the participants responses, with minimal interpretation of what the participants said. (Sandelowski, 2010; Fereday & Muir-Cochrane, 2019). The interviews were guided by the ‘harm to children’ items participants had endorsed in the online survey and allowed them to elaborate on their experienced of growing up in a household where parent gambled (see interview prompts in Appendix). The responses and the data were organised according to the areas identified in the online survey, but

also allowing for new themes to emerge from the participants' stories using the analytic steps outlined by Braun and Clarke (2006). The steps involved familiarisation, re-reading and coding the transcripts through generating initial codes, developing and modifying them in the context of the entire dataset. Consistent with participatory approaches, we ensured that the findings and interpretations of data were consistent with the views of people with an experience of gambling-related harm and therefore consulted with people with lived experience of parental gambling (through the study advisory group), to check and comment on our interpretations of the data. Participants were also provided with the opportunity to review their own interview transcripts. The software package (NVivo) supported the organisation, coding and identification of themes.

Description of the sample

Most (85 per cent) of the 20 participants (who had all experienced gambling harm as a result of parental gambling) were exposed to parental problem gambling (CAST-6 score 3 and over), however three participants endorsed less than three CAST-6 items (one participant two, one participant endorsed one item and one endorsed none). Participants were mostly female (80 per cent) with ages ranging from 19 to 48 years (*Median* = 33 years). Four participants resided in Victoria, six resided in New South Wales, six resided in Queensland, two resided in Tasmania, and two resided in the Australian Capital Territory. Table 12 displays the descriptive statistics of demographics and wellbeing factors for the subsample of participants completing interviews compared to the online survey sample of adult children of gamblers.

Table 12: Description of qualitative interview sample and online survey sample

Characteristics of the subgroup	Qualitative interview subsample, %	Online survey sample, %
Female	80.0	68.6
Born overseas	5.0	8.9
Aboriginal or Torres Strait Islander	10.0	3.3
Bachelor degree or higher	85.0	54.7
Employed	80.0	67.9
Married/de facto	90.0	55.1
Anxiety	45.0	37.0
Depression	40.0	31.9
Post-Traumatic Stress Disorder	35.0	33.9
Health excellent/very good	30.0	29.1
Alcohol abuse at least weekly	5.0	16.4
Smoking in last 3 months	25.0	27.6
Illegal drug use	5.0	14.6
IPV – victimisation	35.0	38.3
IPV - perpetration	30.0	25.3
Own gambling problems (lifetime)	30.0	38.4
Problem gambling parent	85.0	59.2
Both parents were gamblers	40.0	25.6

Note: Sample size varies for online survey due to missing data. IPV = intimate partner violence.

The subsample of interview participants differed in some ways from the larger group of 191 participants in the online survey who had been exposed to parental problem gambling as children. Table 13 show a comparison of the Gambling Harm to Children items reported by participants in both samples.

Table 13: Gambling Harm to Children items endorsed by interview and online survey samples

Due to the parent(s) gambling, myself or another child in the household experienced...	Qualitative interview sample %	Online survey children exposed to parental problem gambling %
Physical abuse	20.0	23.9
Verbal abuse	60.0	64.6
Left unsupervised	70.0	65.5
Not having enough money	65.0	65.0
Witnessing violence	40.0	42.5
Child welfare call	15.0	9.7
Distress or upset	90.0	89.4
Problems in parent-child relationship	60.0	74.3
Number of harms, M (SD)	4.6	3.1

The next section is organised according to the types of harm the participants experienced as a result of their parent's problem gambling when they were children, as described in the above table. The section specifically reports participants' accounts of the different types of harms they endorsed in the online survey and how these were elaborated on in the interviews.

Results of the qualitative interviews

The interview analysis was organised around types of harm reported in the online survey: Gambling Harm to Children (adapted from Alcohol's Harm to Children scale). The interviews particularly focused on exploring the mechanisms through which different types of harm were related to parental gambling. The types of harm participants discussed were: (1) family conflict and child abuse; (2) parental absence; (3) financial impact; (4) psychological impact; (5) impact on child-parent relationship; (6) intergenerational transmission of problem gambling and; (7) educational impacts. We report the major themes elaborated on by the participants and illustrate typical participant responses of each theme through quotes from the interviews. Due to very sensitive information shared by the participants and a small number of participants, we have omitted any potentially identifiable information about the participants and attribute participant citations to gender, approximate current age of the participant and whether their mother, father or both parents gambled in harmful ways when the participant was a child.

The qualitative analyses revealed 10 major themes: 1) experiences of family conflict; 2) experience of child abuse by a gambling parent; 3) parental absence; 4) financial impact; 5) psychological impact; 6) family relationships; 7) intergenerational transmission of gambling; 8) experiences of school and education; 9) child welfare and integrational trauma and; 10) what would have helped/what did help.

Experiences of family conflict

A majority of participants (n=15) reported witnessing parental fighting and family conflict due to problematic gambling behaviours. Many of the families were struggling financially and large gambling losses further strained parent relationships. Parental conflict was often triggered or exacerbated by money issues, as well as the gambling parent's absence and their perceived lack of effort in looking after the home and children, both of which were directly related to gambling. This strain contributed to significant parental relationship dysfunction in the families, with seven participants reporting that their parents had separated.

I think the fights were about money in general, but there were also arguments in relation to Mum's gambling. I would say towards my adolescent years, Dad really wanted to curb the gambling. They were getting older and he wanted to set up for his retirement, obviously realising how much money they were spending. Female, 40s, both parents gambled

My Dad would come home late from the pub, if at all, and Mum would get really pissed off for days, it was quite obvious even when I was really young. The fights got worse and more physical when I was older, or maybe I just understood more. Female, teens, father gambled

Alcohol further fuelled the conflict between parents.

I quickly worked out whether they had won or not, because 9 times out of 10 they'd come back, they'd be intoxicated, arguing, sometimes physically, altercations outside the house or inside the house. And then that one time when they did win, it would be a joyous occasion. Male, 20s, both parents gambled

They were kind of as bad as each other. They'd have a few drinks and there'd be fights. My brother and I would hide under the bed. I was probably about seven or eight, he's 13 or 14[...]. There was a lot of violence growing up [...]. It was tough. Female, 40s, mother gambled

In families where there was no verbal or physical fighting, the conflict between parents was perceived as a silent one, but it was still felt strongly by the participants.

And Mum, would just stay well clear of him on Saturdays. I think they had a don't ask, don't tell policy with everything related to money and the races with a lot of conflict surrounding it, and a lot of resentment. I know Mum resents how things were managed financially, but she just didn't really have anything to do with it because she was the home keeper and looking after the kids. Female, 20s, father gambled

My dad could be quite selfish, he didn't appreciate all the effort that she'd [Mum] gone through to make it all work. And so, when she was starting to feel bad or he wasn't communicating with her and things like that, she would tell me about it, and that would make me quite angry. She would walk around on eggshells because she didn't want to upset him or didn't want to say the wrong thing or do the wrong thing. Female, 20s, father gambled.

Experiences of child abuse by gambling parent

Fourteen participants reported verbal abuse towards them as a result of their parent's gambling. These involved threats of violence and a general fear of the parent. These issues were further exacerbated by the parent's bad mood, anxiety and stress after gambling binges or big losses.

There was never a punishment or any violence or anything, but it was almost like it was to be expected. She had never hit me or hurt me, but I always just felt that that could have happened. And then she just would yell at me and that could go for hours at a time. Female, 40s, mother gambled

And he knew that I had that money somewhere in the house. And he came back from evidently being at the pub one day. And I remember him threatening to punch my head in if I didn't give him the money for that, so then he could then go and put it into a poker machine. Female, 30s, father gambled

Physical abuse of the child due to parental gambling was described by four participants. It was difficult to conclude to what extent physical violence was directly related to gambling: the participants reported that their parents became more violent when they were stressed and angry about gambling losses or financial strain, but also that it was difficult to know what other things were happening in their lives at that time.

I'd get a beating and that sort of stuff, but there was always a trigger point, whether I was arguing or had broken something or whatever. Not that it was justified. The punishment was never quite to the degree that the thing was when she was at her worst. Female, 40s, mother gambled

He became quite abusive when I was growing up mainly towards myself when things got out of control. I was the main victim because I was a second eldest so he was abusive verbally, physically and sexually. Female, 30s, both parents gambled

Parental absence

Sixteen participants reported being left unsupervised by the gambling parent in their childhood. Sometimes, parents were physically and emotionally absent, leaving children completely unsupervised. In other cases, participants were left in the company of other children or unsafe adults, resulting in serious harm (for the participants or other people in the household), antisocial behaviours, or emotional distress.

Lack of time with the gambling parent

A common theme in the interviews was a general lack of time with the parent. Parents who gambled often worked long hours after which they would go out gambling, so that the children hardly saw them. "He was at the races every Saturday so my whole childhood, he'd miss most of my sporting events on a Saturday" or "He would go to work and into the pub after, and usually we'd be in bed by the time he got home." One participant described their mother desperately using the children to get their dad home from gambling: "I remember my mom ringing the pub, as a kid, and she used to put us on the phone and say, "Dad, when are you coming home?"

Mum was on and off with work, but she never had more time for me even when she was unemployed. I got sometimes dropped at one of the clubs and the kids would watch a movie and my mum would go gamble and then come pick me up, and sometimes it was really late and I had fallen asleep. Female, teens, mother gambled

She's always been kind of absent and didn't really care what I did, which my [non-gambling] dad also hated. Like I could at eight years of age just go for a bike ride around the neighbourhood, be gone for hours and she wouldn't really care, I guess she was doing other things. Female, 20s, mother gambled

He was always focused on gambling or getting to the pub and he never really took us down to the creek or never took us swimming. Never taught us how to tie a knot. All the things that you would want your dad to teach you as a child. He never did that, he was always just so focused on gambling and drinking. Female, 30s, father gambled

Participants described feeling parental absence even in their physical presence: *And if he wasn't working, you could hear him watching a race, even when he is supposed to be with his kids. You could hear him get mad and yell, you could tell if he came second.* One participant suspected that gambling acted as means to escape from family responsibilities:

I feel like he used it [gambling] to often try and escape. We didn't go out and do family activities and stuff. But I don't know if he was out because he was gambling or he was out because he didn't want to come home and deal with kids at lunchtime and bedtime. He wasn't really there a lot of the time. Female, 30s, father gambled

Leaving children unsupervised

Leaving young children unsupervised was particularly problematic when both parents gambled at problematic levels. A common theme was leaving young children at home for long periods of time when parents were out gambling, with the assumption that older siblings would look after the younger ones.

My parents were massive gamblers and often away every night. They'd leave us home with our elder sister, I would have been about six when that realization come in. That would have been my earliest memory of being home alone, or there'd be times where Mum and Dad would drop us off at the local pool, which wasn't far from [the gambling venue]. We'd be there for hours after the pool shut waiting for Mum and Dad to come and pick us up. Female, 40s, both parents gambled

We lived near the pub, so they figured it's fine [to leave children home alone]. And then it was, "Well, if you're 10 years old, you can be staying here and looking after all your younger siblings when we go to the pub." The children ranged from about six months of age up to nine. Female, 30s, both parents gambled

I remember being left alone for him to pop into the TAB. It would've been in late primary school. Not for long, but I remember waiting on the footpath with my three younger siblings because I don't think kids are allowed in. Waiting there with my school bag while he's going in to place that bet for whatever race and then come back out. Female, 30s, father gambled

Being left unsupervised left children feeling scared, unsafe, and anxious, and sometimes it resulted in serious harm to the participant or other children in the household: *My sister was molested by a family member because he was the person who used to babysit us [when parents were out gambling].* Some participants engaged in antisocial behaviours in their early teens, which became possible due to a lack of parental supervision:

I think I put myself in so many risky situations as a 13, 14, 15 year old. Drinking and we were able to smoke. I was smoking marijuana when Mum and Dad weren't home. There were some really creepy people around that did try and lure me somewhere. I remember hiding for hours. Then I look at the impact on my brothers who got quite heavily into petty crime, which set off a trajectory of their life. They did a lot of break and enters, they would stash stuff at home. Female, 40s, both parents gambled

My younger sister was sneaking out at the age of 13 or 14, and doing things at a much younger age. She was certainly drinking and she was hanging out with boys that were much older than her, that was probably a bit unsafe. Female, 40s, mother gambled

Financial impact

A majority (n=15) of the participants talked about not having enough money due their parent's gambling. Many participants had grown up in low-income households where any degree of gambling losses significantly added to the financial strain. That financial strain, in turn, resulted in unstable housing and even issues with physical health. As one participant reported:

We went without food a few times. I'd get just one school uniform. Dad was meant to pay for my braces, but he couldn't come through with the funds because he kept gambling. So I had them on for a year longer than I was supposed to. They wouldn't treat me because there was no payment. I was in quite a lot of pain. Female, 20s, father gambled

I think my Dad left. Didn't have any money, we were always moving around, and I realized that we were always moving around because we kept on getting kicked out of places, not because we just liked moving. Female, 20s, mother gambled

Not completely poor....

While most participants recalled their childhood as 'poor', they mostly had their basic needs met, if only just.

We never went without food, but we would often do whatever it was, just toast, that sort of stuff. Sometimes she [gambling mum] wouldn't have enough money for petrol in the car, so she'd have to catch the bus into town. Female, 40s, mother gambled

It was pretty tight, but I didn't care. I remember going to the school fete around about Christmas time and I bought a raffle ticket for a wheelbarrow full of groceries and Christmas things. I remember winning it and Mum was just in tears. She was in absolute tears. And I thought it was tears because she was happy that we won it, but it was tears because there was nothing in the cupboard. Female, 30s, father gambled

...but there was always money for gambling.

Living in poverty and getting by with very little was accepted as normal, and so was the fact that there was always money for the parents' 'gambling hobby'.

I got older and I wasn't able to do certain things due to funding constraints. And I'm like, "But there's money right there that's going into that poker machine." Female, 30s, both parents gambled

Our school camp coming up and my parents said, "Oh, we really can't afford it. We don't have a lot of money," but they would still have enough money on the weekends. My mum would still have enough money to go with my grandma and my dad would still have enough money to go to the pub on the way home and have a few beers. And in my head it was like part of our budget is factored towards that and it's not negotiable. Female, 30s, father gambled

Financial shock

Participants who had experienced more well-to-do lifestyles and reported how they had experienced the shock of losing the family home or a parental business. They described how this had led to subsequent uncertainty and anxiety about having their basic needs met in the future.

We were well off enough to all be going to good schools and have a nice house in [wealthy suburb], and then everything just completely flipped upside down very quickly. I remember my mum telling me through very teary eyes, and it was just such a shock, because we had a really lovely life. So it was just a bit of a shock and a bit confusing. Female, 30s, father gambled

I remember the For Sale sign, so the bankruptcy, selling the house meant they were foreclosing. It was right outside my bedroom window, so I'd look out the window at night

and cry thinking, "Where are we going to live? How am I going to finish grade 12? Where am I going to finish grade 12?". Female, 40s, mother gambled

I just came back from school camp and everything was packed up when we were moving. My parents had lost their business and the house at the same time. So it's hard for me to say if it was because of gambling. Maybe one day I'll be able to ask them if it was lost due to gambling. While I still see them gambling, it's hard to ask. Female, 30s, both parents gambled

Psychological impact

Eighteen participants reported distress directly related to parental gambling that involved feeling angry, scared, or confused. Psychological impacts of gambling were heavily intertwined with financial impacts as well as other conflict, abuse and severe neglect. In some cases, participants who had experienced these issues as children felt that they were at least partially to blame.

I always thought I was the problem. This is normal behaviour, but because I was the only one saying, "I don't think this is right," and always being told, "You're just causing trouble. You don't know what you're talking about." I took that with my life. So no matter what happened to me, my life later on, I somehow managed to turn it where it was my fault. Female, 40s, both parents gambled

During the night, I remember feeling scared. I remember I'd be scared with Mum and Dad at home during the night. But when they weren't home, I do remember feeling scared of the dark outside. I was really feeling quite vulnerable. Female, 30s, both parents gambled

The psychological impact of the parent's problem gambling commonly continued to early adulthood. Half of the participants had experienced at least one episode of serious mental health problems, mostly during adolescence and during the transition to adulthood. These mental health problems included addictive behaviours (problem gambling, alcohol and drug abuse), stress-related disorders (including PTSD and generalised anxiety), and mood-related disorders (such as depression).

One participant described how his mental health had deteriorated after moving out from the family home where both parents had exhibited problematic gambling throughout his childhood, and the subsequent development of serious gambling problems. This was followed by multiple suicide attempts and a PTSD diagnosis. He described the intertwined relationship of the PTSD symptoms and suicidality following gambling binges and heavy losses.

*The first time [suicide attempt] was more of a cry for help. The second time was a genuine attempt, and it's very f**** lucky that I didn't... I ran my car off the road at a pretty high speed and straight off an embankment. It was really uncanny that I didn't die. If I was to gamble now, it'd be the death sentence for me, to go back and gamble. So I just wouldn't do it anymore. Male, 20s, both parents gambled*

Another example of complex mental health problems was provided by a participant who was sexually and physically abused by her gambling father. This experience resulted in a PTSD diagnosis, depression and generalised anxiety in early adulthood. While most participants did not attribute their current mental health problems directly to their parent's gambling, they acknowledged that the instability and unsafe environment stemming from gambling had contributed to their own psychological difficulties.

I guess through growing up, there's probably been a lot of traumatic experiences that I've had that have made me compulsive in many areas in my life - gambling, drinking, eating. Female, 40s, father gambled

I'm very highly strung. I feel like I have to take care of everything. Everything has to be controlled and very maintained. I think that comes from the instability as a kid. I'm very, very sentimental, and it's a bit of a second hand impact, but because of the instability from not having money, and moving around, I don't like change that is out of my control. Female, 20s, mother gambled

When I was 18, I was seeing a psychologist and on antidepressants. I left this really intense family situation to go to university, and just ... Everything was very messed up and it was very, very tough because all this pressure from helping my mum and siblings and being in this love/hate, intense situation, I think I've spent for the most part my 20s recovering from it. And it was the gambling issue really what triggered this monumental wave of issues. Female, 30s, father gambled

Family relationships

Sixteen participants elaborated on the impact of parental gambling on their relationship with the gambling parent, their other parent and other family members.

Impact on child-parent relationship

A majority of the participants reported that parental gambling had a negative impact on the child-parent relationships. They described how the emotional and physical absence of the parent resulted in difficult or ambivalent relationships between themselves and their gambling parents.

The problems in our relationship have been more about Dad's emotional absence and neutrality towards everything, as opposed to the gambling. And I think the gambling has just ended up being one of many ways in which he didn't take responsibility. Female, 30s, father gambled

*When he's talking and you are listening, that's fine. But when he listens, he doesn't really listen. Or he listens, but doesn't hear. I guess when this is aimed at you, you feel useless or you are f**** useless, or what are you doing that for? Continuously. Also, if you don't do something right then you're f**** useless. Female, 30s, father gambled*

*I didn't actually have a bad relationship particularly, but I guess she's always been absent. She didn't really care what I did, like be gone for hours and she wouldn't really care, she was doing other things. After I moved out our relationship got a lot better. I didn't speak to her for a little bit, because we left in a s**** circumstance, but since not living with her, I can talk to her. She wasn't a good mum, and I hated her having control over my life. Female, 20s, mother gambled*

Co-occurring alcohol abuse, gambling and abusive behaviours also played a role in the relationship between the participants and their gambling parent(s). While gambling was not thought to directly impact the parent-child relationship, participants reported that their parent's bad moods following gambling losses were exacerbated by their drinking and the general instability.

The other thing associated with problem gambling was she was an alcoholic. So our relationship was quite fraught when I was younger, because of those two things and she

was a mean drunk. It was just her and I, so there was no one to buffer her being angry.
Female, 40s, mother gambled

Our relationship wasn't that great. I guess combination of the gambling and also the alcohol that just seemed to come with it, whenever he came home from gambling - if he'd had a bad day which was more often than not - he would have a very, very short temper. Aggressive, saying nasty things, so you just learned to avoid him and go outside or go up the paddock or whatever, anything just really to get out of the house. Female, 30s, father gambled

While many described the child-parent relationship had been OK as a young child, they also reported that it had become progressively strained over time with feelings of mistrust and disappointment having emerged: “*You can sort of separate yourself from your family a bit when you get older*”. This often stemmed from a realisation of how the gambling parent treated the other family members, particularly the non-gambling parent.

When I was in probably 14 through to 17, we just didn't have a relationship at all. I just didn't really have much time for him and didn't have much patience for the crap that he was carrying on with, which it might be just a teenage thing. Female, 30s, father gambled

Going into my teenage years the relationship became more strained, when that [gambling] got revealed I was very, very angry. I actually could not understand how someone could do that to their family and to their partner. I would even tell my mum that, "I'm surprised you're not divorcing him". Female, 20s, father gambled

As a result of growing resentment towards their gambling parents in their adolescence and early adulthood, four participants had completely cut off relationships with their families:

I said to Mum in my early twenties, when we were still living at home, "Listen, I think you need to leave. This is no good for Dad. This is no good for any of us. You're not here. You don't want to be here. It's evident that you don't want to be here. You need to leave." I think that was kind of the straw that broke the camel's back in our relationship. Female, 40s, mother gambled

One participant who had also struggled with their own gambling addiction described severing all ties with his family of origin:

I thought I had a good relationship with my parents. Again, that was my normal. And I felt, even though we lived week to week, we banded together and that was their cycle in our family unit. But as I got older and I've done years of therapy I know its not normal and that's the reason why I don't have a relationship with anyone in my family anymore, because they're all marred by some gambling or addiction or mental health issue. Male, 20s, both parents gambled

Consistent with these family relationship patterns, one participant whose parents stopped gambling when she was in primary school described a loving and close-knit family but also that:

...the outcome could have been quite different if Mum and Dad had continued to gamble at the rate that they were. So that could have potentially broken down any relationship when we were older because you start to understand things. If they didn't realise that they needed to change their ways with gambling. Female, 40s, both parents gambled

Other family relationships

Some participants talked about developing particularly strong relationships with their siblings through “*having gone through the same, they are the only ones who understand*”, “*having stuck together*”, and “*supporting each other*”.

Similarly, some participants generally had a positive relationship with their non-gambling parent that acted as a protective ‘buffer’ against the negative impacts of gambling in the family.

Mum stayed at home our whole lives. There were a few times where, because I'm one of five, so she had to do everything. I know there are a few times where their relationship struggled and especially on a Saturday, if they had a big win because he part-owned race horses with a few other people. If they had a big win he'd come home really late, obviously drunk and pass out. There was no support there for her. Female, 20s, father gambled

Because Mum worked really hard to make sure that we were able to do things that we wanted to do like me playing football or [sister] still learning piano or something like that. We just, I guess we were always living on the edge about if something went wrong, then we wouldn't have anything else. Male, 20s, father gambled

Dad made several attempts throughout probably the year where it was at its worst, of calling the clubs and saying, "Stop. Please stop her from entering," and they, of course, were like, "Well, we can't prevent this. She's a customer, and she comes in." So there was quite a bit of desperation from my father. Female, 40s, mother gambled

I think there was a point Mum took all Dad's cards off him and he wasn't allowed to have any ATM cards at any time. But after seeing how he used to speak to Mum all the time about it, and Mum was working her bum off to make sure that they didn't lose the house, I didn't have much time for him. And Mum didn't talk about it to anybody, out of shame I guess. Female, 30s, father gambled

Mum and I have a very close relationship. I know behind the scenes with Mum there was a lot of stress about finding money to make sure we didn't lose things. I became pretty much the sounding board for Mum, I think. After she kind of got everything off her chest with me, I then became a bit of a confidant for her. Female, 20s, father gambled

These accounts highlight the clear emotional and financial burden on the non-gambling parent. For some participants, this burden resulted in maladaptive coping strategies employed by the non-gambling parent, including increasing their use of alcohol. These behaviours further decreased the level of parental support available to the children in the family.

My mum coped with the break-up and move by drinking, grew up with a lot of anger in the house ... She just didn't have the time or tools to deal with us, and then maybe six years ago now she went to a rehab facility and has not drunk at all since then, but that was an

opportunity for her to work through a lot of the stuff from their relationship. Female, 20s, father gambled

Taking responsibility

One major theme was how gambling affected family relationships through the dereliction of financial or family responsibilities. This generally resulted in one of two outcomes: (1) the non-gambling parent compensating for the gambling parent; or (2) children becoming 'parentified' and taking on the role of an adult. This pattern was particularly strong in families where both parents exhibited problematic gambling.

Compensation by the non-gambling parent

In families where the other parent was not gambling, the participants recalled the non-gambling parent taking responsibility of family finances and compensating by working harder, taking out loans, or protecting children in other ways.

He [gambling dad] was making okay money, but he just wouldn't share it. And he would also use his own money that he made from work instead of helping out the family, he would just use it as his play money, I suppose. Mum was very frustrated that he would be so selfish about it. And that he wouldn't see the harm that he was doing to the rest of us. Mum worked really hard to make up for his losses. Male, 20s, father gambled

Behind the scenes Mum had lot of stress about finding money to make sure we didn't lose things. Once everything started to settle, she was still frantically working in the background to make sure we had enough money for everything, and paying back loans she could. My dad did not see that at all, and it got actually really quite infuriating when she would do all these things basically to make up for his mistake. Female, 20s, father gambled

When the addiction came out and then when he got unwell in terms of his anxiety, all the responsibilities got defaulted to my mum in terms of, "How do we now live? So, she had to be the one to work out, "Where does the money come from? How do I pay off everything? How do I do this?" Because he was out of work too because of being unwell. Female, 20s, father gambled

Parentification of children

Many participants described the gambling parent not taking responsibility for looking after the home, young children or finances. The burden of these tasks would then fall on other family members, exacerbating already strained family relationships: "When I was five, I'd often feel like I'd have to protect my youngest siblings from [fighting over gambling]. Often I'd distract them or would play something or I'd be the one shielding them from that". The consequences of this type of parentification were described by the participants.

I felt unsupported because I was babysitting kids when I really should have been doing things like homework. So just recently my mother went, "Oh, you could have been a doctor." And maybe I could have achieved that. But if you're doing a huge number of chores and looking after a lot of kids it's not really achievable. I don't know anyone who's become a doctor and not had supportive family. Female, 30s, both parents gambled

My older brother had it worse. He had to drop out of school so he could work to pay for my siblings to get by. Anything he wasn't giving us, he was keeping to buy a car. But I know that my dad took those funds and said that he would pay them back – it was like tens of thousands – but never did. Everything was worse for him (my older brother). He's now

stuck in a job that wants to get out of but he doesn't have the money now because Dad took it. Female, 20s, father gambled

Some of the participants talked about having conflicting thoughts about supporting their parents through their gambling addiction:

What I didn't want her to do was lose all her money, but I also didn't want her to give it all to me. And then in one of her moments of normalcy she'd go, "I've got a problem, I'm addicted to gambling." So we'd talk about ways to stop. And I kick myself now ... But I didn't want to take control for her, I wanted her to take the responsibility. Female, 40, mother gambled

I'd be angry when he'd win and be like, "I don't want this, because it's from your gambling." Then I'd actually remember, "You've got to take it, because if you don't take it, he's just going to take that money back to gambling." Female, 30s, father gambled

Even as young adults, the responsibility continued, often motivated by concern for younger siblings.

When our lease ended my dad was out gambling and responsibility to find us a house fell to me— I was at uni at the time and had many younger siblings. I was squeezing it in between uni classes and work. We actually got stuck without a house and had to stay in a temporary accommodation. I said 'I'll find us a house but on the agreement that you start saving, we can't live like this anymore'. We ended up finding somewhere but he never started saving. Then he ended up losing his job so for the last year of our lease my siblings and I were paying for it. Female, 20s, father gambled

Intergenerational transmission of gambling

Eleven participants reported that gambling was embedded in their family culture and an integral part of their early lives. Participants talked in detail about the process through which gambling was normalised in the family. Intergenerational transmission was a common occurrence: from grandparent to their own parent, their parent to siblings, and siblings to nieces and nephews. Six of the eleven participants had also struggled with their own gambling problems in the past, although only two currently experienced problematic gambling. Those who did not currently gamble described how this set them apart from their immediate and extended families for whom gambling participation was an acceptable behaviour.

My father and his father were both bookmakers and the races stuff has always been a big part of our family life. And that was his predominant source of income. He's quite successful, my father - up until a point. Female, 20s, father gambled, own gambling problems in the past

A lot of my siblings gamble. My siblings think that is normal behaviour and a normal use of money. They justify it the same way my parents did, which is, "Hey, it's just like having a hobby." So you put aside money for a hobby, which is gambling. Female, 30s, both parents gambled, never had own gambling problems

My grandma did the horse racing and I remember her and my mom taking me and my siblings to the races to watch the race. And then my mum and my grandma on the weekends would go to the local club and we'd have a meal there, they'd do the meat raffle, then say my mum would stay with us and my grandma would go and play the poker machine and then they'd swap. Female, 20s, both parents gambled, own gambling problems in the past

So he's [gambling dad] one of eight, I think. Him and his family and his cousins. Each year they go down to the [out-of-town] races and he could blow like thousands upon thousands down there. He would just, every year that was his holiday. Instead of Mum or us going away for a weekend, I suppose, he would just use that money for himself. Male, 20s, father gambled, never own gambling problems

Own gambling

While only two participants currently gambled, six participants reported lifetime gambling problems. The normalisation of gambling in their childhood coupled with a lack of appropriate supports translated to complex and severe gambling issues for these participants.

My journey with gambling, it's definitely intergenerational. My grandparents gambled, they lost their home to gambling. My parents gambled, my mother and my stepfather, because my mum and dad split up when I was still a toddler. But my mum and my stepdad gambled and it never amounted to anything directly because of gambling. And then once I turned 18, I started gambling. So there's four generations of gambling that we know of in my family. Male, 20s, both parents gambled, own gambling problems in the past.

I have addictive personality that runs in the family. I guess it was the food and exercise in the beginning. And as I got older and you were allowed to drink legally, I started drinking. And then I got into being a chef and then I guess that started in with drugs as well.. And the drinking led to gambling. Female, 30s, father gambled, own current gambling problems.

Maybe it goes one of two ways...

Participants generally held negative views about gambling, consistent with the low levels of current gambling participation in the sample. For example, two participants who had never gambled described their experience:

I was lucky that my mum, I guess, was able to convince us to just absolutely despise gambling. I guess, because of Dad, because we could see that the problems that it could cause... we just, I guess even subconsciously... we just didn't want that to happen to us. Male, 20s, father gambled, never own gambling problems

I see gambling as a method that some people use when they've got underlying mental health issues, and it's a way of control and maybe escape. I don't like gambling in any way and, indeed, I don't do any gambling at all, I certainly always associate gambling with the potential for family breakdown. Female, 40s, mother gambled, never own gambling problems

Many participants perceived there were generally two options when one grows up in a problem gambling family: namely, to give in to gambling or resist it and break free from the family tradition or 'curse'.

So it's almost like they think, oh, the kids will stay the same from when they are little. And then they get older and the kid has to make a choice, do I just keep going through and stay at school, and then one day, hopefully, I can buy my own [house, car], or do I just go out and steal and then hang out with my parents? That's your two choices as a child growing up in a house with people like that. I chose just to ride it out. The rest of them chose not to. Female, 40s, both parents gambled, own gambling problems in the past

My sister and I don't gamble at all - we really recognized the effect that that had on our lives and we don't want our children to have to go through that, but my brother from the age of 12 has been involved in drugs, gambling, and I feel that perhaps maybe because my dad was not around much and not spending much time with him. Maybe it goes one of two ways. You either grow up and you don't want to do that or you grow up and you think that that's what's normal. Female, 30s, father gambled, never own gambling problems

Experiences of school and education

In addition to the detrimental impacts of parentification on children's education and further career prospects (described earlier), half of the participants reported that parental gambling had specific negative impacts on their schooling. Participants described a lack of access to essential educational materials, uniforms or inability to attend school excursions and participate in other extracurricular activities.

I remember not having the right materials at school. The area I lived in was quite racist at the time, so the public school we didn't have really good experiences with. I had to go to a Catholic school. I do remember those school fees were massive for Mum and Dad and they couldn't pay it. Pretty sure I missed out on an excursion because Mum and Dad didn't have money. Female, 40s, both parents gambled

There would be excursions or something, unless the school was willing to subsidize then we wouldn't get to go. There were trips to the state capital through school. And again, that just didn't always end up happening. And there were things like want to buy some books. Not happening. They generally didn't see the point of prioritising money on anything academic. I was the first in my family to finish year 12. Female, 30s, both parents gambled

We didn't go on very many excursions at all with school and Mum had to really think about and plan financially with getting uniforms and new shoes or anything like that. Female, 35, father gambled

Sometimes the impacts of parental problem gambling on schooling and later career pathways were more severe due to "parentification" or the psychological impacts of gambling:

And looking back now, I realize why I didn't do as well in grade 12. I always used to put it down to a being a bit lazy studying and I hadn't probably put my all into the course. Again, certainly as I got older, I realized that not knowing what was going on, impacted on me. I knew I was upset, but didn't realize how far reaching it was, Female, 40s, mother gambled

I had a lot of anxiety, and still do, I remember being not being able to concentrate at school, because I didn't know what was happening underneath all of that, where I was going to be living, how much more stuff was going to be taken, cars, house, what else was going to be taken away? Female, 40s, mother gambled

Child welfare and intergenerational trauma

It was uncommon for child welfare services to be called as a result of parental gambling. For the three participants who reported child welfare calls, gambling was only one of many reasons for this intervention. One participant reported severe and chronic sexual and physical abuse by their gambling parent that ultimately resulted in court action. Another participant reported intermittent periods in the child protection system due to their gambling parent's co-morbid substance use and neglect.

But then it made me realize when we were kids, why we went with so little, and there was a lot of trauma that went on in my household. I had to go to foster care, and I believe that a lot of that was due to financial things in the household as well, that I believe was caused from gambling. Female, 40s, both parents gambled

One participant talked about child protection concerns for her young child, relating to her ex-partner's complex addictions and gambling-related problems. She described how welfare services had been unable to intervene:

The court doesn't care if he's drinking and gambling and taking drugs. All they care about is the effect on the child. The Family Court or child protection are not concerned unless you can demonstrate a direct connection. I don't want my child to be around that at all but until you can prove that there's actually a link between that and the behaviour, you can't really do anything about it. Female, 30s, father gambled

In one family, police and social services were called because of behavioural problems of a younger sibling that were left unmanaged, particularly when the adults were out gambling. Some participants also reported intergenerational transmission of family dysfunction associated with trauma.

She [gambling mum] came through group home settings [residential care]. She grew up in just horrific circumstances although she did occasionally get a family. They were awful. And then she would bounce back through the child protection system. All her siblings are either dead or in jail so I have to say that she has done really well from that. Female, 30s, both parents gambled

I've thought about it a lot and I've come to forgive her [gambling mum] for a lot as well. She had it tough. She was raped when she was younger. She had a lot of self-esteem and body issues. She was bulimic, she was an alcoholic. Female, 40s, mother gambled

Dad had six siblings, and one of them died from a drug overdose, he was addicted to heroin for a long time. Of the two remaining brothers they are both heavy gamblers and drinkers and the two sisters that remain as well. They are, one's a heavy drinker, one not as much anymore. But they all have their own little addictions, sort of like obsessions. So they've all had trauma in their life, but Dad is probably the most OK of all of them. Female, 30s, father gambled

What would have helped or did help?

Participants talked about the types of supports that may have helped them or their family to deal with the impacts of parental gambling including: (1) gambling venues taking responsibility; (2) support for the non-gambling parent; (3) another adult's support; i.e., someone who tells them what's right; (4) places to go to and activities to do go after school and holidays with safe adults; and (5) education.

Gambling venues taking responsibility

Participants called for gambling venues to be more alert to individuals spending large amounts of money, and that: "*there should be some way of incentivizing the venues to actually look out for them rather than just taking their money*", or a mechanism to "restrict access" or exclude people with gambling problems, beyond self-exclusion: "*if he would have been barred from being able to gamble there, it would have healed us and my siblings.*"

Gambling places know who the repeat people are and they know the people who are putting lots of repeated bets on, or whatever. There needs to be something there to trigger,

I know they won't ever say no to them, but something to say, "Hey, do you need to put on this next bet?" Or even from someone to be like, "Who's watching your kid out there?"

Female, 30s, father gambled

Support for the non-gambling parent

Participants suggested that their non-gambling parents needed more support because they were often the ones holding the family and finances together and running the household, usually on their own.

I think it would have been good if we had of gone to family counselling together or something like that. I think she definitely needed some more help, just how much she offloaded and debriefed with me, she probably should have been doing it with someone else, and they would have been able to probably help her work through a lot more things.

Female, 20s, father gambled

When it broke up the family, and I think for my mum, to deal with the emotional turmoil, that was where the support was most needed, because once my dad was out of the picture, he had very little impact on my upbringing, whereas the repercussions of the gambling on my mother who ended up raising us and how that damaged her trust, how that damaged her sense that she could rely on people, how that damaged all of that, she was the one that needed that support, because then she was the one that impacted my brothers and I, not my dad.

Female, 30s, father gambled

Someone who tells me what's right

Some participants just wished there was someone "who was telling me that what I was thinking was correct, that the gambling is wrong". Or similarly, "if someone was there to tell me, "It's going to be okay." And there are places you can go, and there are people that can help you." One participant did report having "the answers", but felt strongly about how gambling in families was perceived: "instead of focusing so much on adults who have the problem, need to focus more on their children, and change the way their children are seen. Give them options, and not just the one that their parents are".

I'd like to say more education for kids so that they can understand that gambling is a problem, but then I think even if I did recognize that it was wrong, I don't know if I would have been able to do anything about it.

Female, 30s, father gambled

Places to go to and activities to do

Another participant suggested: "Something like a camp and have something really positive happening in your life, just so you can get away from it [gambling family] for a little while and not have that constant tension in your body." Similarly, one participant talked about alternative places for children to go to if they needed to be in a safe place when their parents attended gambling venues.

Places and activities for us to go and do after school that were perhaps either free or subsidized or whatever, just something so that we could go and do something else. Like if he had to continue gambling, then just something where we could catch a bit of a break.

Female, 30s, father gambled

Education

Notwithstanding the general lack of parental supports for educational achievements, 17 of the 20 participants had completed a university degree and perceived that as the main circuit breaker in stopping the intergenerational transmission of problem gambling. Schooling and education, receiving

scholarships and “*finding other options*” had helped participants despite their parents never prioritising education: “*I’m the only person in my immediate family to actually get a university degree.*”

I was very, very fortunate that I got awarded a scholarship to attend the local private school and then boarding school later on, from when I was in like the preschool sort of situation.
Female, 30s, both parents gambled

Summary of main findings of the interviews

In the qualitative interviews of 20 adult children of regular gamblers, the participants reported on how parental gambling was associated with family violence and parental conflict, child abuse and neglect, as well as dysfunctional family relationships, psychological problems of the child and the mechanisms involved in intergenerational transmission of problem gambling in their families. The interviews showed that family conflict, parental fighting, and child abuse (both verbal and physical) were often directly attributed to gambling problems in the families. Financial strain and absence from family responsibilities, in particular, contributed to conflict and violence between parents. Child abuse was more due to short tempers and the aggressive nature of the parent that were exacerbated after gambling losses and stress due to financial strain. Parental absence and leaving children without supervision was a major contributing problem to the wellbeing of the children, including the child-parent relationship and the psychological wellbeing of the children (feeling scared and anxious). Moreover, some interviews revealed serious safety concerns caused by a lack of adult supervision or being left with unsafe adults or peers.

Most participants emphasised the financial impact of parental gambling, such as living in poverty, missing out on educational activities and materials, and nutritious food, but reported that parents would always have money to gamble. The participants perceived these financial impacts as translating into other problems including housing instability, a loss of the family home or livelihood, and family members being left unsupported. Many participants reported feeling angry and confused about parental gambling in their own childhood and most of them had experienced serious mental health problems such as anxiety and PTSD in adulthood.

Family conflict, child abuse and neglect resulting from parental gambling affected relationships between the gambling parent and the participant. Participants reported negative impacts on their education and career pathways, with some having to drop out of school to look after siblings and earn money. Many of them described their gambling parent(s) as physically and emotionally absent, increasingly so as the participants got older. Although the protective relationship with non-gambling parents (and in some cases with siblings) provided a buffer, children often took on parenting responsibilities such as handling the family finances, doing household chores, and looking after younger siblings.

Some of the important interventions or supports that the participants believed would have helped them as children included having gambling venues take more responsibility for the wellbeing of their patrons and the potential impact on families; professional support for the non-gambling parent; organised activities for children outside the family home; and the presence of a safe adult with whom they could confide.

Discussion and conclusions

Although children are commonly cited as the most vulnerable ‘affected others’ of individuals who have gambling problems, few empirical studies have examined wide-ranging harms on children exposed to parental problem gambling. The current study sought to better understand the ways children are affected by parental problem gambling and their gambling behaviours. This broad aim was addressed through three stages: Stage 1 - an overview of empirical literature of the impacts of parental problem gambling on their children, Stage 2 - online survey of gamblers, adult children of gamblers and spouses of gamblers, and Stage 3 - in-depth interviews of a subsample of adult children of gamblers who took part in the online survey.

RQ1: What are the key areas of child wellbeing that are affected by parental problem gambling according to previous literature?

The study systematically built on the UK Gambling Commission’s (2019) framework for measuring gambling-related harms among children and young people as a guide to organise existing literature providing empirical evidence of the impacts of parental problem gambling on children. In Stage 1, the framework was modified to better reflect the existing empirical evidence pertaining to key areas of child wellbeing: (1) Financial problems; (2) Psychological/emotional problems; (3) Relationship problems (within the family); (4) Family violence (a specific type of relationship problem); (5) Behavioural problems; and (6) Physical health problems. The brief overview of the literature showed that most prominent areas of child wellbeing directly related to parental problem gambling were intergenerational transmission of problem gambling, psychological and emotional wellbeing, and relational problems, particularly the child’s relationship with the problem gambling parent and experiences of family violence. While child behavioural problems were not directly attributed to parental problem gambling in the existing literature, the available evidence suggests that there are disproportionately high rates of conduct and other behavioural issues in children of problem gambling parents (Lorenz & Shuttlesworth, 1983; Carbonneau et al., 2018; Vitaro et al., 2008; Momper & Jackson, 2007). There was also consistent evidence of the high rates of self-harm and suicidality in children of people with gambling problems, suggesting that the ways child wellbeing and development is affected by parental problem gambling is complex and nuanced (Jacobs et al., 1989; Lesieur and Rothchild, 1989; Lloyd et al., 2016; Mann et al., 2017). Financial and physical health problems were less commonly mentioned in the literature, notwithstanding financial harms are one of the most commonly cited negative impact of problem gambling (Dowling, Suomi, Jackson, & Lavis, 2016). In addition, we identified no studies that examined each of the areas of harm simultaneously specifically in relation to children. This overview of existing literature provided a rationale for developing methodology for an online survey.

RQ2: Are gambling harms experienced by children reported differently across three groups of respondents?

Stage 2 of the project involved an online survey relating to the main domains of child wellbeing identified in Stage 1. The online survey included three different perspectives to obtain a comprehensive picture of gambling harm to children: regular gamblers, children and spouses of regular gamblers. The online survey adapted the Alcohol’s Harm to Children scale (Laslett et al., 2012; Kaplan et al., 2017) for gambling context, to examine eight types of harm directly caused by parental gambling: (1) physical abuse; (2) verbal abuse; (3) being left unsupervised; (4) not having enough money; (5) witnessing violence, (6) child welfare call; (7) distress or upset; (8) problems in parent-child relationship. The survey showed that parents (people with gambling problems and their spouses) reported lower rates of harm to children compared to the children themselves. Such underreporting or minimising the impact of adult behaviours on children has been previously reported in gambling

literature as well as alcohol and domestic violence literature (Dowling et al., 2020; Gilbert et al., 2009; Laslett et al., 2012). In comparison to other types of harms, the most common type of harm reported by parents in the current study (people with gambling problems and their spouses) were the financial impacts of gambling on their children. Adult children of gamblers, however, most commonly endorsed relational and psychological harms and this may reflect the differences between parents and children's perceptions about what issues are most important to them. These findings are consistent with a recent review by Dowling et al. (2021) showing a lack of concordance in reports of gambling related harm between gamblers and affected others. The review also estimates that gamblers appear to 'export' about half of the harms they experienced to their affected others, that are also likely to include children. Adult children of gamblers who regularly gambled but did not display gambling problems reported having been exposed to a number of types of gambling harm, but this appeared to be at lower levels than children of people with gambling problems. Although there were some obvious methodological differences between the current study and the studies using Alcohol's Harm to Children (Laslett et al., 2012, 2021; Kaplan et al., 2017) adapted to the current study, the current findings also suggest that the patterns of harm from household exposure to problem drinking is different to household exposure to problem gambling.

RQ3: To what extent does parental gambling severity and other family factors predict the degree and type of gambling harm experienced by children?

As expected, more severe parents' problem gambling was associated with the higher number and degree of gambling harm experienced by children, controlling for demographic factors and years of exposure to parental gambling. This was the case for all eight harm items with the exception of child welfare calls. Being born in Australia was related to lower likelihood of physical abuse and lack of money-harm items, a finding that was consistent with previous research (Dowling, Rodda et al., 2014) showing that participants with Australian cultural background reported significantly lower financial, social and employment impacts compared to participants from non-Australian cultural backgrounds. Future studies should examine the role of culture in how gambling harm manifests in families. The presence of another gambling parent increased the likelihood of being left unsupervised due to parental gambling, which is also consistent with the findings from the qualitative interviews on the physical and emotional absence of problem gambling parents. The analysis also showed that more responsive parenting was associated with less severity of each type of gambling harm experienced by children, with the exception of child welfare calls and child distress due to parental gambling. Previous evidence suggests that more positive parenting styles can potentially mitigate the degree of intergenerational transmission of problem gambling (Dowling et al., 2017) but no previous studies have examined the role of responsive parenting on other types of impacts of parental gambling on children. It seems reasonable that more responsive parenting styles would protect children from family conflict or parental absence related to problem gambling, but these findings need further examination using larger samples. Years of parental gambling exposure to children, Aboriginal and Torres Strait Islander status and the gender of the gambling parent were not related to the degree or type of gambling harm experienced by children.

RQ4: In what ways does exposure to gambling harm in childhood relate to outcomes later in life, including general health and psychological wellbeing?

Consistent with previous research, results of the online survey showed that exposure to problem gambling (in relation to own or someone else's) was related to higher rates of current mental health problems and IPV victimisation and perpetration (Goodwin et al., 2017; Salonen et al., 2016; Martyres & Townshend, 2016). Specifically, children of people with gambling problems were more likely to suffer from depression, anxiety and PTSD, IPV perpetration and poorer family functioning, compared to individuals who had not been exposed to regular parental gambling as a child. The current results are consistent with some research on rates of depression in children of people with gambling problems

(Vitaro et al., 2008) but not with others (Dowling et al., 2009). In addition, PTSD has been previously linked to problem gambling (Biddle et al., 2005; Nower et al., 2015) but not to exposure to parental problem gambling. While problem gambling is associated with both IPV victimisation and perpetration (Dowling, Shandley et al., 2016; Roberts et al., 2018; Suomi et al., 2019), the current study is the first to report current IPV victimisation rates in adult children of people with gambling problems, thereby demonstrating the intergenerational patterns in family dynamics associated with problem gambling.

On examination of whether different exposure to gambling harm in childhood predicted current wellbeing, patterns emerged. The results showed that exposure to child welfare checks due to parental problem gambling increased the likelihood of current depression symptoms. Physical and verbal abuse due to parental gambling also increased the likelihood of current PTSD symptoms. This association may be partly explained by the high occurrence of neglect, abuse and general instability in families where a parent has a gambling problem. While parental gambling severity did not predict any of the current wellbeing outcomes of adult children of gamblers, the current results are the first to link specific types of parental gambling harm to later wellbeing of children. Finally, the current results showed that adult children of gamblers with and without gambling problems were both more likely to have gambling problems themselves compared to children who had not been exposed to any parental gambling. This finding is consistent with a growing body of literature showing a strong relationship between parental problem gambling and offspring problem gambling (Dowling, Shandley et al., 2016, Dowling et al. 2017 2018, Dowling 2020; Govoni et al., 1996, Gupta and Derevensky, 1998; Saugeres, Thomas, Moore, & Bates, 2012). In contrast to previous literature, however, more severe parental gambling was associated with less severe offspring gambling: adult children of gamblers without gambling problems reported twice the rate of their own gambling problems than those whose parents had gambling problems. These familial patterns were confirmed in the qualitative interviews (described in the next section).

RQ5: How do individuals exposed to gambling harm due to parental gambling as a child perceive the link between parental gambling behaviours and their own wellbeing?

Stage 3 qualitative interviews provided additional insight into the family dynamics by which parental problem gambling may affect child wellbeing. Children whose parents had gambling problems described complex family dysfunction that was associated with high levels of family conflict, child abuse, neglect and parental emotional absence. These negative family dynamics were exacerbated by parental gambling losses, associated financial problems and fighting between parents. The qualitative findings further illustrated that IPV between parents was predominantly due to financial strain from problem gambling but also to the physical or emotional absence of the gambling parent in supporting the family and children. These maladaptive family dynamics ultimately led to damaging and sometimes irreversible relational and psychological difficulties for the child that peaked in adolescence and early adulthood and, for many, contributed to their current mental health and wellbeing difficulties. These dysfunctional dynamics are consistent with previous empirical studies (Ciarrocchi & Hohmann, 1989; Cowlshaw et al., 2016; Dowling et al., 2009; Kalischuk et al., 2006). Other strong themes in the qualitative interviews related to maladaptive family dynamics were associated with intergenerational transmission of gambling and general child welfare concerns.

Complex family dynamics in families exposed to gambling harm

The current study revealed a complex web of interconnected factors and life circumstances involved in the mechanism through which parental problem gambling translates to harms experienced by children. Stage 2 online survey revealed types of harm children experienced as a direct consequence of their parent's problematic gambling and Stage 3 further illustrated why children exposed to parental gambling problems experienced these types of harm, from their own perspective. The Stage 3 interviews echoed chronic and intergenerational disadvantage in the childhood families of participants

that has been previously addressed in the context of Adverse Childhood Experiences (ACE). Research shows, for example, that children in impoverished settings – similar to the current participants – are frequently exposed to chronic traumatic stressors that can lead to an array of adverse emotional, behavioural, social and physical symptoms stressors (Burke et al., 2011; Stolbach et al., 2011). Parental problem gambling has been previously identified as a form of ACE (Afifi et al., 2020) but also a growing body of research also shows a link between ACE's and gambling in adulthood (Bristow et al., 2021; Poole et al., 2017; Shamra & Sacco, 2015) suggesting that the complex dynamics of disadvantage, parental and child wellbeing extend beyond the current data and should be a focus of future research. In addition, the online survey showed that positive and responsive parenting buffered against the experiences of gambling harm for the child, even after adjusting for parental gambling severity. Similarly, the qualitative interviews showed that the presence of and positive relationship with the non-gambling parent was the single most important contributor to participant's wellbeing. These results suggest that positive relationship with just one parent, or experiences of positive parenting in the context of adverse experiences can act as a protective factor against harm.

Intergenerational transmission of gambling

In the online survey, children exposed to parental non-problem gambling reported twice the rate of their own gambling problems compared to children of exposed to parental problem gambling. This was particularly the case for children who had experienced emotional distress and relationship problems due to their parental gambling, suggesting that being exposed to severe psychosocial consequences of parental gambling may act as a deterrent against problematic gambling behaviours. Moreover, this pattern of within-family gambling participation was highlighted in the qualitative interviews with children exposed to parental gambling problems, whereby many participants described as having been 'put off' from gambling as a result of witnessing their parent's destructive gambling behaviours. They did, however, report a strong intergenerational transmission of problem gambling within their families, passed on from grandparents to their parents and to siblings, nieces and nephews.

Consistent with the social learning model of gambling, whereby child and adolescent gambling is promoted by family members and friends, participants described gambling as 'normalised' and a significant part of family leisure activities (Delfabbro & Thrupp 2003; Gupta & Derevensky 1998; Haroon & Derevensky 2001; Kalischuk et al. 2006; Ladouceur et al. 2001; Nower et al. 2004; Oei & Raylu 2004; Vachon et al. 2004). They also described having been socialised to gambling at a young age, a common pattern identified in other studies where children learn gambling through observation of parental gambling, and increased access to gambling products at a young age (Delfabbro & Thrupp 2003; Nower et al. 2004). Gambling family members were eager to teach children the rules of gambling that also makes gambling activities more accessible to them when they were old enough to gamble without adults (Delfabbro & Thrupp 2003). As a result of the negative experiences from parental problem gambling, many participants in the qualitative study, however, displayed extremely negative attitudes towards gambling and had been able to break the intergenerational transmission of problem gambling.

Although the pathways to gambling abstinence varied across individuals, most participants reported they did not want the same kind of life for themselves or for their children as their parents had provided for them. For some, this had involved having to experience and recover from their own severe gambling problems or to remove themselves from the family environment that was the source of their distress, although this was not always possible given the lack of social supports outside the family environment. Others had sought professional help to deal with adverse impacts on family relationships and participants' own psychological wellbeing. Participants also related other potential opportunities for interventions to break the cycle, including more supports for the non-gambling parent, respite activities for children and 'someone to talk to', and venues taking more responsibility for regular clients who display problematic patterns of gambling. The participants described problem or excessive gambling

continuing to be a hidden issue in families – and at the same time normalised – that many participants had not questioned the extent to which the negative consequences of gambling were affecting them until they had reached adulthood. The normalisation of excessive gambling in childhood families was a strong theme in the qualitative interviews, overall.

Child welfare issues

Only a small number of participants reported child welfare calls or child protection involvement as a direct result of parental problem gambling. However, the levels of neglect, abuse, and general instability reported in both the online survey and the qualitative interviews appear serious enough to warrant a child protection response to parental problem gambling. In addition to this, intergenerational child welfare issues and trauma histories featured in many of the qualitative interviews, whereby many of the problem gambling parents of the participants grew up in families marred with trauma, extreme levels of abuse and criminal behaviours. The current findings come about almost two decades after Darbyshire et al (2005) identified parental problem gambling as a child protection issue. As they pointed out:

In the last 10 years of conducting studies with children and young people across a wide range of their health and illness-related issues, I have never seen such profound existential sadness and hopelessness as was apparent in the children we interviewed whose parent (usually mum) had changed from a 'normal' loving, attentive, trustworthy person to someone that the children could barely recognise. Given gambling is a silent issue, it goes easily undetected in child welfare investigations, but can be the main cause of safety concerns in the family.

(Darbyshire, 2005, p6)

Unfortunately, parental problem gambling remains a silent issue in the many disadvantaged families (Rogers, 2013). The protective concerns associated with problem gambling (parental mental health, child neglect, emotional/physical abuse, transience) share similarities with the risk factors associated with parental substance abuse, which is currently a recognised child protection issue in statutory child welfare systems (Smith & Wilson, 2016). There are no current screening tools or referral pathways for parental problem gambling in the child protection system. Identification of parental gambling severity could be piloted through the use of brief screening tools with children or other family members in child welfare services such as the 6-item CAST-6 (Hodgins et al., 1993) used in the current study.

In addition to the high levels of abuse and neglect in the families, 'parentification' is a specific child protection concern and it was commonly raised in responses to the current study. Earley and Cushway (2002) describe parentification as children taking on a caring role in situations in which parents have abdicated parenting. While parentification of a child has not been previously directly associated with parental problem gambling, it is commonly recognised as a child protection issue specifically related to parental mental health problems and addictive behaviours (Tedgård et al., 2019). Although Charles et al. (2012) assert that parentification on a temporary basis is not harmful and may even act as a protective 'skill', Barlow and MacMillan (2010) report that prolonged periods of parentification should be considered as a form of emotional abuse given the high levels of psychosocial harm to the child when they take on tasks that are developmentally inappropriate. In addition to its developmental and emotional consequences, the current results showed that parentification also meant that some children were not able to complete their schooling or to pursue their desired career pathways as they had to help provide financially for their families and look after the home and younger siblings on a regular basis.

Limitations

There are a number of methodological limitations in this research that should be taken into account when interpreting the findings. First, the study used a self-selected convenience sample, thus the

findings may not be representative of the broader Australian general population. However, the use of a consistent methodology with the inclusion of a comparison group recruited through from the community using the same sampling frame allowed conclusions to be drawn about the impacts of parental problem gambling on children.

A second limitation was a large amount of missing data, which is common in online surveys collecting self-report data. Although we had over 500 participants starting the survey, only 74 per cent completed the survey, which reduced the statistical power to detect significant effects. Cell sizes were also small in some instances, reducing the generalisability of our findings.

Two of our key measures had not been previously validated for the gambling context. Given the absence of validated measures to assess affected other's gambling severity, the current study is the first to adapt validated tools to measuring Gambling Harm to Children caused by parental gambling: the Alcohol's Harm to Children and the CAST-6. Both of these measures were initially developed for family members of alcoholics to measure the severity of a family member's alcohol abuse (CAST-6) and its impacts on children (Alcohol's Harm to Children scale). In addition to lack of psychometrics in the gambling context, the tools measure the severity and impacts of problem gambling using 'once removed' information about gambling behaviours, with a high likelihood of underreporting in the current sample. The results from the Alcohol's Harm to Children adaptation, indeed, suggests underreporting of parental gambling severity, given that children of parents both with and without gambling problems (identified using the CAST-6) reported significant harms.

There was a significant overlap between the adult children of gamblers, gamblers themselves, and spouses of gamblers that may have confounded some of the results, particularly in relation to their current wellbeing. In addition, our measure of lifetime regular gambling did not include timeframe or frequency of that gambling, thus regular gambling was based on the subjective assessment of the participant. However, this method is consistent to that used in other research (e.g., Delfabbro et al., 2021) to cover a wide range gambling harm experiences by the participants in the study.

The measure of intimate partner violence (both victimisation and perpetration) is limited to threat or actual physical violence. It therefore does not capture other forms of abuse such as verbal, emotional and financial abuse, or coercive control. Further research should examine the relationship between parental gambling and these abuse types.

Finally, the data on parental gambling and harms to children was mainly retrospective in both Stage 2 online survey and Stage 3 qualitative interviews and this may have affected the accuracy of some of the self-reported outcomes. Participants may have been limited in their ability to isolate harms caused by parental gambling from those with other causes (such as mental health difficulties), or may have been unaware of their parents gambling if it occurred when they were very young. Collecting retrospective self-report data, however, is a well-established methodological approach in research on adverse childhood experiences (see for example Australian Child Maltreatment Study; Mathews et al., 2021).

Despite these limitations, the current study provides novel information about the patterns of association related to parental problem gambling, gambling harm experienced by children of people with gambling problems and their current wellbeing using multiple perspectives across multiple domains.

Clinical and service implications

Given the high rates of psychosocial problems in the children of people with gambling problems, there is a need for more consistent approaches to the assessment and treatment of children in families where gambling is a problem. Current evidence specifically warrants more systematic identification of

emotional and behavioural problems in children of people with gambling problems, and provision of early and targeted interventions. As some programs targeting the socio-emotional wellbeing of adult children of gamblers already exist (Kourgiontakakis et al. 2016), offering evidence-based supports for parents who present to gambling treatment should become routine practice.

Parental concerns about child wellbeing are recognised as a major help-seeking trigger for people with gambling problems and their spouses (Rodda et al., 2019; 2017). Thus, raising public awareness about gambling harm on children could be used to engage more parents into treatment. The current findings show that the non-gambling parents often take on a primary caregiver role, and more supports should be provided for child socio-emotional and parenting needs. The results from the current study are consistent with previous research showing that non-gambling spouses need a wide range of supports to minimise the impact of parental gambling on children (Rodda et al., 2019). While family-focused interventions focusing on coping skills of the family member in response to a gambling problem show promising evidence (Hodgins et al. 2007; Orford et al. 2010; Rychtarik & McGillicuddy, 2006), there is a particular lack of interventions specifically targeting family members' wellbeing, including children (Kourgiantakakis et al., 2021; Rodda et al., 2019).

The current results call for better service coordination to address the harm from parental problem gambling on children. Examples of these exist in protocols requiring alcohol, drug and mental health service inter-service collaboration that ensure that the interests of the children affected by alcohol, drugs, or mental health issues are appropriately preserved (Dowling et al., 2010). Parental gambling should be acknowledged as a risk factor in the context of child welfare, similar to alcohol and other drugs (Afifi et al., 2010; Echeburua et al., 2011; Korman et al., 2008). Similar to these other services that acknowledge the effects of parental addictions and mental health problems on dependent children, problem gambling services require sophisticated protocols for referral of children to child-specific services or the capacity to provide such services themselves. Notwithstanding the growing evidence about the co-occurrence of family violence and gambling, including its detrimental impact on children, there are currently no targeted interventions that would concurrently address both behaviours. Child and family welfare services should have access to education and tools to identify and address parental problem gambling in families, particularly in the presence of other wellbeing factors such as family violence, mental health problems and other addictions. A high level of integration of services encompassing assessment, referral, intervention, and post-intervention support can be used to promote better outcomes for children living in problem gambling families.

Research Implications

The current study highlights a need for further work examining the harms experienced by children of people with gambling problems and how these are related to family dynamics. Building on the methodology used in the current study, future studies should use multiple informants and consistent methodologies across studies and informants. Large-scale quantitative and in-depth qualitative data on a wide range of gambling impacts and involving children and parents is needed to understand how parental gambling affects child wellbeing and where interventions could be most effective.

Although a number of studies identified through the overview of the literature had collected data about the wellbeing of both spouses and children of people with gambling problems, many of these did not distinguish between the different groups that can be affected when problem gambling emerges within families (e.g., Dowling et al., 2020; Li et al., 2017). Our results indicate that it is important to distinguish between these different groups because there are likely to be meaningful differences in the processes involved, the nature of the impacts and how they need to be understood. An important way in which future studies might build upon our work is to examine the concordance between different respondent groups. Most importantly, interviewing children of people with gambling problems while – or immediately after – they are exposed to parental gambling may be useful to comprehensively gain

insights into the experiences of children in problem gambling families. However, ethical aspects of collecting data from vulnerable children who may be experiencing a crisis or who may have been exposed to trauma should be considered in such studies.

Conclusions

The current study presents one of the few empirical studies focusing on the broad ranging correlates and impacts of parental problem gambling experienced by their children. The results of the study highlight the intertwined nature of adverse childhood experiences and parental problem gambling, particularly related to child neglect, abuse and various types of trauma and their long-lasting consequences. Despite its limitations, the current study provides a comprehensive overview of the main areas of wellbeing affected by parental problem gambling from the perspectives of the parents and children exposed to problematic gambling. It shows the complex nature of family dynamics related to problem gambling but also points to multiple opportunities for supports and intervention that may improve the wellbeing of families and children exposed to gambling harm. The results of the project can be used to inform future initiatives for multi-sectoral approaches that are currently needed to adequately address the negative impacts of parental gambling in families with children. The voices of children experiencing gambling harm should not remain silent anymore.

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Appendices

Appendix A: Measures used for each respondent group (see Appendix B for full details)

Table 1

Area	Construct	Measures used across three respondent groups		
		Gamblers	Adult children of gamblers	Spouses of gamblers
1. Gambling and problem gambling	Lifetime regular gambling	Single item "Have you ever regularly gambled on...*".	Single item "Has your parent(s) ever regularly gambled on...*".	Single item "Have you ever had a live-in intimate partner who regularly gambled on...*"
	Child exposure to gambling	Single item "When you think about the time you gambled regularly, was there ever a child (0-17 years) living with you?"	Single item "How old were you when they first started regularly gambling on *"	Single item "Has there ever been a child (0-17yrs) living with you and your partner at the time your partner was gambling regularly?"
	Current gambling	Single item "Have you gambled in the past 12 months?"	Single item "To your knowledge, have they gambled in the last 12 months?"	
	Gambling severity	NODS-CLIP3 (Volberg et al., 2011)	CAST-6 gambling adaptation (Hodgins et al., 1993).	
2. Impact of gambling on child(ren) (questions about a child exposed to parental gambling)	Extent of child (aged 0-17 years) exposure to gambling	Live with a child while gambled & Years child exposed to gambling	Years of living with gambling parent & Age when parent started gambling	Live with a child while spouse gambled & Years child exposed to gambling
	Gambling Harm to Children	Alcohol's Harm to Children scale - gambling adaptation (Kaplan, Nayak, Greenfield & Karriker-Jaffe, 2017), with two additional items.		
	Child's relationship with parent/parenting	Hostile parenting and parenting consistency from LSAC.	Emotional responsiveness; Parenting Style Inventory (Darling & Toyokawa, 1997)	Hostile parenting and parenting consistency from LSAC.
	Socio-emotional functioning	Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997)	Current anxiety/depression/ PTSD/ substance use	Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997)
3. Current health and wellbeing (of the participant)	Family functioning	General functioning subscale of the McMaster Family Assessment Device (Epstein, Baldwin & Bishop, 1983).		
	Intimate partner violence	Conflict Tactics Scale (Straus, Hamby, Boney-McCoy, & Sugarman, 1996) for victimisation and perpetration.		
	Anxiety symptoms	2-items from the Generalized Anxiety Disorder scale (GAD-2; Kroenke, Spitzer & Williams, 2007).		
	Depression symptoms	2-item Patient Health Questionnaire (PHQ-2; Kroenke, Spitzer & Williams, 2003)		
	PTSD	Primary care PTSD screen (PC-PTSD: Cameron & Gusman, 2003)		
	Alcohol abuse	AUDIT 3 binge drinking item (Bush, Kivlahan, McDonell, Fihn & Bradley, 1998)		

	Drug use	Single-Question Screening Test for Drug Use (Smith, Schmidt, Allensworth-David & Saitz, 2010).
	General health	First item from the 36-item Short Form Survey (SF-36: Ware & Sherbourne, 1992)
COVID-19 pandemic questions	Financial situation	Single item from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. Could you easily raise \$2000: 'now' and 'before COVID'? Any of five events happened since COVID-19 pandemic began.
	Income	Change in income since COVID-19 began.
	Addictive behaviours	Alcohol, smoking, gambling weekly habit change since COVID-19 pandemic began.
	Relationship	Impact of COVID-19 on quality of intimate relationship.
	Service use	Use of 6 services in last 12 months, and since COVID-19 pandemic began.
	Employment	Employment status before and since COVID-19 pandemic began.
Demographic characteristics		Age, state of residence, gender, Indigenous status, relationship status, country of birth, highest educational qualification.

* electronic gaming machines (pokies), race betting, sports betting, casino table games, private betting or poker for money?
LSAC = Longitudinal Study of Australian Children. HILDA = Household Income and Labour Dynamics Study.
AUDIT = Alcohol Use Disorder Identification Test.

Appendix B: Further detail on measures used in online survey

Regular gambling participation

The following items helped to identify to which of the three respondent groups the participants belonged. Note that the groups are not mutually exclusive. Identification of gamblers follows the method by Delfabbro and colleagues (Delfabbro, Georgiou & King, 2021).

1. **Gamblers** were identified via the question “Have you ever regularly participated in electronic gaming machines (pokies), race betting, sports betting, casino table games, private betting or poker for money?” (yes/no). Those who answered yes were then asked “When you think about the time you gambled regularly, was there ever a child (0-17 years) living with you?” (yes/no).
2. **Adult children of gamblers** were identified via the question “Has your parent(s) ever regularly participated in electronic gaming machines (pokies), race betting, sports betting, casino table games, private betting or poker for money?” (yes/no). Participants who answered yes were then asked “How old were you when they first started regularly gambling on electronic gaming machines (pokies), sports betting, casino table games, private betting or poker for money?” (yes/no)
3. **Spouses of gamblers** were identified via the question “Have you ever lived with an intimate partner who regularly participated in electronic gaming machines (pokies), race betting, sports betting, casino table games, private betting or poker for money?” (yes/no). Those who answered yes were then asked “Has there ever been a child (0–17yrs) living with you and your partner at the time your partner was gambling regularly? (even if this child is now an adult)?” (yes/no). If participants had multiple gambling partners, they responded in relation to their current or most recent gambling partner.

Gambling severity

For gamblers, the three-item NODS-CLiP (Volberg 2011) was employed to identify lifetime pathological gambling. Participants indicated yes or no to the following: (1) Has there ever been a period lasting two weeks or longer when you spent a lot of time thinking about your gambling experiences or planning out future gambling ventures or bets?; (2) Have you ever tried to stop, cut down, or control your gambling?; (3) Have you ever lied to family members, friends or others about how much you gamble or how much money you lost on gambling? Total scores ranged from 0–3 with endorsement of one or more items indicating lifetime pathological gambling. We used both total score and the binary variable indicating lifetime problem gambling for the analyses.

For children and spouses of gamblers, gambling severity was assessed using the CAST-6 scale (Hodgins et al. 1993) with adaptations to refer to gambling rather than alcohol use. Participants indicated yes or no to the following items: (1) Have you ever thought that this parent/spouse had a gambling problem? (2) Did you ever encourage this parent/spouse to quit gambling? (3) Did you ever argue or fight with this parent about their gambling? (4) Have you ever heard this parent/spouse fight with others about their gambling? (5) Did you ever feel like limiting this parent's/spouse's access to money for gambling? (6) Did you ever wish that this parent/spouse would stop gambling? Item endorsements were summed to create total scores ranged from 0–6 with scores over 3 indicating problem gambling (Hodgins et al., 1993). We used both total score and the binary variable indicating problem gambling for the analyses.

Impact of parental gambling on a child

Child exposure to gambling

Adult children of gamblers indicated how old they were when the parent started gambling, as well as the number of years they lived with their parent while their parent were gambling regularly.

Gambling Harm to Children due to parental gambling

'Gambling Harm to Children' was assessed using six items adapted from the 2015 U.S. National Alcohol's Harm to Others Survey (Kaplan, Nayak, Greenfield & Karriker-Jaffe, 2017), with two additional items (7 and 8 below) identified in the literature as key types of gambling harm experienced by children. Wording for the scale was amended according to the three perspectives of the respondent groups, **gamblers, spouses and adult children of gamblers**: participants were asked whether the following ever happened because of their own, their parent's or their spouses' gambling: (1) you or other children in the household were physically harmed; (2) a child was yelled at, criticized, or otherwise verbally abused; (3) a child was left unsupervised; (4) there was not enough money for a child's needs; (5) a child witnessed violence; (6) child welfare services were contacted for a child; (7) a child experienced distress or upset about the gambling; (8) a child had serious or repeated problems in their relationship with the gambler. Throughout the report the eight items included in this scale are referred to as 'Gambling Harm to Children' scale/items.

Parent-child relationship/parenting

The scales for parenting and parent-child relationships were chosen on the basis of being widely used and validated in the Australian context. Because there were no validated measures available on this construct adapted for both the child and parent perspectives, separate measures were used for children (parenting responsiveness) and parents (parenting consistency and hostile parenting scales).

Adult children of gamblers provided information on their relationship with their gambling parent via the Emotional Responsiveness Scale from the Parenting Style Inventory (Darling & Toyokawa, 1997). Participants rated their agreement with five statements about their relationship with their parent as a child (aged 0–17 years) such as 'My parent hardly ever praised me for doing well'. On a five-point scale ranging from 1 "strongly agree" to 5 "strongly disagree". Final scores were the mean of items, with higher scores indicating more responsive parenting. The scale has adequate reliability (Cronbach's alpha = 0.74) and is predictive of school involvement, problems behaviours, substance use and school achievement and (Darling & Toyokawa, 1997).

For **gamblers and spouses** who identified a child (aged 0–17 years) had been living with them at the time of gambling, parent-child relationship was assessed via measures of parental *consistency* and parental *hostility* that were used in the Longitudinal Study of Australian Children (LSAC). Where the child was no longer living with the participant, responses referred to the last period of cohabitation. Where the child was now an adult, responses referred to the period when the child was under 18 years of age. For spouses, parenting questions referred to the participant's own parenting at the time the spouse was gambling.

Parenting consistency (children aged 4+). Participants responded to five items such as "When you give this child an instruction or request to do something, how often do you make sure that he/she does it?" on a 5-point scale ranging from 1 "never/almost never" to 5 "all the time". Responses were summed to create final scores of 5 to 25 with higher scores indicating more consistent parenting.

Hostile parenting (0–3 years). Participants responded to five items such as “I have raised my voice or shouted at this child” on a 10-point scale ranging from 1 “not at all” to 10 “all the time”. Final scores were the mean of item scores and thus ranged from 1 to 10 with higher scores indicating more hostility.

Hostile parenting (4+ years). Participants responded to six items such as “Of all the times you talk to this child about his/her behaviour, how often is this disapproval?” on a five-item scale ranging from 1 “never/almost never” to 10 “all the time”. Final scores were the mean of item scores and thus ranged from 1 to 10 with higher scores indicating more hostility.

The scales have good reliability (H indexes range from 0.80 to 0.86 for consistency and 0.85 to 0.92 for hostility) (Zubrick, Lucas, Westrupp & Nicholson, 2014).

Child socio-emotional wellbeing

Childhood socio-emotional wellbeing was assessed via the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) with **gamblers and spouses**. Participants responded to 25 items regarding the child’s behaviour over the previous 6 months (if the child is under 18 years of age) or during their childhood (if the child is now an adult) on a three-point scale ranging from 0 “not true” to 2 “certainly true”. The SDQ contains five subscales assessing conduct problems, hyperactivity/inattention, emotional symptoms, peer relationship problems and prosocial behaviour. The current study used the internalising, externalising and total difficulties scores. The internalising score is the sum of the emotional and peer relationship scales and ranges from 0–20 with higher scores indicating more internalising difficulties. The externalising score is the sum of the conduct and hyperactivity scales and ranges from 0–20 with higher scores indicating more externalising behaviour problems. The total difficulties score is the sum of the emotional, conduct, hyperactivity and peer relationship subscales and has a range of range 0–40, with higher scores indicating more socio-emotional difficulties. Reliability of the SDQ subscales is satisfactory (mean Cronbach alpha = 0.73), and the internalising and externalising scales are relatively independent of each other (Goodman, 2001). The SDQ is widely used internationally, has concurrent validity against more comprehensive measures (Goodman and Scott, 1999) and is effective in distinguishing children across the full range of psychopathology (Goodman & Goodman, 2009).

Participants’ current health and wellbeing

All participants were invited to answer the current health and wellbeing questions.

Family functioning

The quality of family relationships was assessed via the General Functioning subscale of the McMaster Family Assessment Device (Epstein, Baldwin & Bishop, 1983) in relation to their current family. Participants indicated their agreement with 12 statements such as “planning family activities is difficult because we misunderstand each other” on a four-point scale ranging from 1 “strongly disagree” to 4 “strongly agree”. Final scores were the mean of the 12 items and ranged from 1 to 4 with higher scores indicating better family functioning. The scale has good reliability (Cronbach’s alpha of .86) and good validity against other family variables (Byles, Byrne, Boyle & Offord, 1988).

Intimate partner violence

Intimate partner victimisation and perpetration was assessed using the 6-item Revised Conflict Tactics Scale (Straus, Hamby, Boney-McCoy & Sugarman, 1996). For perpetration, participants indicated yes or no to whether in the past year they had: 1) Threatened their partner with violence, pushed or shoved their partner or threw something that could hurt their partner; 2) Slapped, hit or kicked their partner; or 3) Their partner had an injury such as sprain, bruise or cut because of a fight with them.

The same items were used for intimate partner victimisation with the references reversed. Any item endorsement indicated victimisation or perpetration as a whole. The scale has good reliability (Cronbach alphas range from .79 to .9) (Straus et al., 1996).

Anxiety symptoms

The severity of anxiety symptoms was measured using the two-item Generalized Anxiety Disorder scale (GAD-2 Kroenke, Spitzer, Williams, Monahan, & Löwe, 2007). These items inquire how often the participant has been bothered by “feeling nervous, anxious or on edge” and “not being able to stop or control worrying” in the past two weeks. A 4-point Likert scale, ranging from 0 “not at all” to 3 “nearly every day” was used, with responses summed to create the final score. Using a cut-off score of 3 (scores of 3 or more indicate anxiety symptoms), the GAD-2 has good diagnostic performance, with a sensitivity of 86 per cent and specificity of 83 per cent for generalised anxiety disorder (Kroenke et al., 2007). We used both count score as well as the binary variable indicating anxiety symptoms for the analyses.

Depression symptoms

The severity of depression symptoms was measured using the two-item Patient Health Questionnaire (PHQ-2; Kroenke, Spitzer, & Williams, 2003). These items inquire how often the participant has been bothered by “little interest or pleasure in doing things” and “feeling down, depressed or hopeless” in the past two weeks. A 4-point Likert scale, ranging from 0 “not at all” to 3 “nearly every day” was used, with responses summed to create the final score. Using a cut-off score of 3 (scores of 3 or more indicate depression symptoms), the PHQ-2 has a similar diagnostic performance as longer depression scales, with a sensitivity of 83 per cent and specificity of 92 per cent for major depression (Kroenke, Spitzer & Williams, 2003). We used both count score as well as the binary variable indicating depression symptoms for the analyses.

Post-Traumatic Stress Disorder (PTSD) symptoms

The presence of current PTSD symptoms was measured by the Primary Care PTSD Screen (PC-PTSD; Cameron & Gusman, 2003), a 4-item screen that was designed for use in primary care and other medical settings. Participants are asked “In your life, have you ever had any experience (e.g. illness, accident, victim or trauma/abuse, losing a loved one) that was so frightening, horrible or upsetting that, in the past month you...” and then presented with four statements representing PTSD symptoms in the past month. Participants answer yes or no to each symptom. Participants are considered ‘positive’ for PTSD if they answer ‘yes’ to any three symptoms (Cameron & Gusman, 2003). The scale has good test-retest reliability ($r = .80$), sensitivity of .91 and specificity of .80 (Kimerling, Trafton & Nguyen, 2006). We used both count score as well as the binary variable indicating positive identification of PTSD for the analyses.

Alcohol abuse

Current hazardous alcohol use was measured using an item from the Alcohol use Disorders Identification Test (AUDIT-C) (Bush, Kivlahan, McDonell, Fihn & Bradley, 1998): *How often do you have six or more drinks on one occasion*. Response options ranged from 0 “not at all” to 4 “daily or almost daily”, and we dichotomised this measure to indicate whether or not participants reported any binge drinking. This single item measure has a 90 per cent sensitivity and for past year alcohol abuse or dependence for men, and 77 per cent sensitivity for women (Bush et al., 1998).

Drug use

Current drug use was assessed using the Single-Question Screening Test for Drug Use: “How many times in the past year have you used an illegal drug or used a prescription medication for non-medical

reasons?” (Smith, Schmidt, Allensworth-Davies & Saitz, 2010). One or more instances of drug use indicates current drug use. This single item has a 100 per cent sensitivity and 73.4 per cent specificity for detection of a drug use disorder (Smith et al., 2010).

General health

Participant health was assessed using the first item from the SF-36 (Ware & Sherbourne, 1992) “In general, would you say your child’s health is…” with the response options ranging from 1 “excellent” to 5 “poor”.

Demographic and background questions

COVID-19 pandemic questions

As the data collection took place during the COVID19 pandemic, we included questions about social and economic impacts of the pandemic on the participants.

Financial situation. Participants indicated whether, since the start of the COVID19 pandemic, any of the following applied: 1) they had received Job Seeker payment; 2) received Job Keeper payment; 3) lost their job; 4) applied for early access to superannuation; 5) asked for a pause on rent or mortgage payments. They also indicated changes to their household income since the start of the pandemic, on a five-point scale ranging from 1 “reduced a lot” to 5 “gone up a lot”.

Addictive behaviours. Participants indicated changes to their weekly habits regarding consuming alcohol, using tobacco products and spending money on gambling activities since the start of the COVID-19 pandemic on a five-point scale ranging from 1 “increased a lot” to 5 “decreased a lot”.

Relationship. Participants rated their relationship quality in the past month compared to before the COVID-19 pandemic by indicating their agreement with four statements: 1) we are having more meaningful conversations; 2) we are arguing more; 3) we feel closer; and 4) we are supporting each other well. Responses were on a five-point scale ranging from 1 “strongly agree” to 5 “strongly disagree”.

Service use

Participants indicated their use of the following services in the last 12 months, and since the COVID19 pandemic began: (1) mental health services; (2) gambling support services; (3) family relationship services; (4) GP or primary care services. For each service, the response options were 0 “no” 1 “yes, I have accessed”, and 2 “I have needed but not accessed”.

Employment

Participants indicated their main employment status before the COVID19 pandemic: 1 “self-employed”; 2 “employed for wages, salary or payment in kind (full-time, part-time, casual)”; 3 “unemployed, on JobSeeker”; 4 “solely engaged in home duties”; 5 “a student”; 6 “retired or on a pension”; 7 “volunteer/charity work”; 8 “unable to work”; 9 “unemployed, not receiving government benefits”; 10 “other”.

Other demographics

Participants indicated their age, state of residence, gender, Indigenous status, relationship status, country of birth, and highest educational qualification.

Appendix C – parent subsample description

Current wellbeing and service use for regular gamblers and spouses of regular gamblers are in Table A1 and A2 below.

Table A1: Current wellbeing of participants who endorsed own gambling, by gambling problems and parent

	Child exposed to gambling		Child not exposed to gambling		Control, % n = 58	
	Participant has GPs, % n=58	Participant does not have GPs, % n=13	Participant has GPs, % n=74	Participant does not have GPs, % n=22		
Anxiety	34.5	7.7	35.1	22.7	17.2	
Depression	36.2	0.0	32.4	22.7	12.1	
PTSD	29.3	7.7	25.7	31.8	19.0	
Health excellent/very good	28.9	61.5	32.4	40.9	44.8	
Alcohol abuse	25.9	7.7	33.8	27.3	15.5	
Smoking	43.1	30.7	35.1	22.7	17.2	
Illegal drug use	13.8	1.7	18.9	22.7	15.5	
IPV victimisation	41.4	46.2	29.7	22.7	18.2	
IPV perpetration	41.3	23.1	18.9	18.2	12.1	
McMaster family functioning, M (SD)	3.0 (0.7)	3.2 (0.7)	2.7 (0.7)	3.0 (0.7)	3.2 (0.5)	
Past 12 months service use						
	Mental health	32.1	23.1	28.8	22.8	22.8
	Gambling help	15.8	15.3	11.1	0.0	0.0
	Family relationship	10.7	7.7	6.9	5.2	5.2
	GP	62.1	61.5	51.4	65.5	65.5

status. **Bolded** cells indicate significant difference to the control group ($p < .05$).

NB: sample sizes differ from those in the Figure 1 due to missing data.

* $p < .05$ for comparison of problem gamblers, non-problem gamblers and control

GPs = gambling problems. PTSD = post traumatic stress disorder. GP = general practitioner. IPV = Intimate partner violence

Table A2: Current wellbeing of participants who endorsed spouse's gambling, by spouse's problem gambling and child gambling exposure status. **Bolded** cells indicate significant difference to the control group ($p < .05$).

	Child exposed to spouses gambling		No child exposed to gambling ^a	Control
	Participant's spouse has GPs n=56	Participant's spouse does not have GPs n=15	n=64	n=58
Anxiety, %	30.4	26.7	26.5	17.2
Depression, %	32.1	26.7	23.4	12.1
PTSD, %	26.8	33.3	34.3	19.0
General health is excellent/very good, %	33.9	33.3	34.3	44.8
Alcohol abuse, %	7.1	46.7	21.9	15.5
Smoking in last 3 months, %	28.6	33.3	32.8	17.2
Illegal drug use, %	5.4	6.7	14.1	15.5
IPV – victimisation, %	57.1	40.0	40.1	18.2
IPV – perpetration, %	32.1	26.7	25.0	12.1
McMaster family functioning, M (SD)	3.2 (0.7)	2.8 (0.6)	2.8 (0.7)	3.0 (0.5)
Past 12 months service use, %				
Mental health, %	12.8	7.1	31.3	22.8
Gambling help, %	10.7	14.3	7.8	0.0
Family relationships, %	8.9	7.1	10.9	5.2
GP, %	73.2	40.0	68.3	65.5

^aSpouses where no child was exposed were not asked the problem gambling items

Bold text indicates $p < .05$ for comparison of problem/non problem gamblers

GPs = gambling problems. IPV = intimate partner violence. GP = general practitioner. IPV = intimate partner violence.

Appendix D – COVID19 questions

Table A3: COVID19 pandemic items for the three respondent groups

	Gamblers	Adult children of gamblers	Spouses of gamblers
<i>Weekly habits have increased for...</i>			
Gambling activities	26.0	10.2	11.3
Consuming alcohol	29.9	25.4	31.0
Using tobacco products	13.1	12.8	12.21
Using illegal medication or prescription medication for non-medical purposes	6.6	6.2	4.9
<i>Since the start of the pandemic...</i>			
Received JobSeeker	21.4	23.9	23.8
Lost your job	10.4	8.6	9.5
Applied for early access to Superannuation	18.8	11.7	13.5
Asked for a pause on rent or mortgage payments	2.0	2.5	4.0
<i>Income since start of pandemic</i>			
Reduced	34.0	33.5	37.2
Stayed about the same	45.3	46.4	47.2
Gone up	20.7	20.1	13.6
<i>Service use since COVID</i>			
Mental health	18.2	21.8	15.7
Gambling help	6.1	5.4	5.9
Family relationship services	3.7	7.8	7.4
GP or primary care professional	47.3	59.7	56.3

Appendix E – Interview prompts for Stage 3 Qualitative interviews

Check online survey relevant questions.

Normally I'd like to start from just a bit of background information about your experiences of gambling. You mentioned that one (or two?) of your parents gambled when you were a child. Tell me a little about this parent (or is it both of your parents) who had a gambling problem?

Do you remember when you first learnt about it? What was that like?

What was your relationship with this parent like? And what is it like now?

Back to when you were a child... I just have some follow up questions about the questions we had in the online survey TAKE OUT AS NEEDED.

- You mentioned that there were some fights/disagreements about your parent's gambling between you and them but also with other people? Do you want to tell me a little bit about that?
- You mentioned there were some verbal/physical -abuse related to your parent's gambling in the house OR financial problems/distress/relationship impacts caused by the gambling. Would you mind telling me more about that?
- You also mentioned being left unsupervised, can you tell me a little bit more about this? How old were you when that happened?
- You mentioned child welfare services (or child protection) were called because of your parent's gambling, what happened then?

ALL: In your own words, what kind of impact do you think your parents gambling had on

- Your own wellbeing
- Your relationship with your parent.
- Your family in more general, e.g. siblings
- Financially?

Did your parent ever seek help? What kind of things do you think would've helped them to stop?

Have you ever sought professional support because of their gambling? What do you think would've helped your own wellbeing as a child in a family where gambling was present?

What do you think about gambling in general, would you like to sum in one sentence

Anything else you would like to say before I turn off the recording?