

**The Impact of Excessive Video-Gaming on Partners of Gamers:  
An Investigation of Harm and Coping Strategies.**



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## Abstract

Internet Gaming Disorder (IGD) refers to a pattern of persistent gaming that results in functional impairment to the user (APA, 2013). There is a wide range of intrapersonal harms associated with problem gaming. Less attention is given in the literature to the potential “passed on” harms to those around the problem gamer. The primary aim of this study was to investigate whether partners of gamers (N=271) were experiencing harm in five domains (relationship, emotional, health, financial and work). The secondary aim of the study was to investigate what coping strategies (emotion and problem-focused) are most frequently endorsed by partners of gamers and whether emotion-focused coping predicted the overall harms experienced by partners. An online survey of partners of gamers investigated reported IGD, as well as, examined the harms, psychological distress and coping strategies. The 18.1% of participants that reported IGD in their partner reported greater harm on all five domains, in comparison to those who had non-IGD partners. Emotion-focused coping was more frequently endorsed by those with greater psychological distress. A regression analysis indicated that emotion-focused coping was not predictive of overall gaming related harm beyond what was already predicted by IGD, time spent gaming, and psychological distress. The present finding provided valuable information about types and strength of the harms “passed on” to those close to a problem gamer and how partners of gamers may cope with this situation.

**Declaration**

This thesis contains no materials that has been accepted for the award of any other degree or diploma in any University, and to the best of my knowledge, this thesis contains no materials previously published except where due reference is made. I give consent to this copy of my thesis, when deposited in the University Library, being available for loan and photocopying.

**October 2017**

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## CHAPTER ONE

### Introduction

#### 1.1 Overview

The American Psychological Association [APA] has recognised maladaptive gaming as Internet Gaming Disorder [IGD] in Section III of the latest edition of the Diagnostic and Statistical Manual of Mental Disorders [DSM-5] (APA, 2013), as a condition that warrants further study. The problem gaming literature documents a wide range of individual harms that affect the psychosocial functioning of the individual. Griffiths, Davies, and Chappell (2004) reported, for example, that heavy gamers, felt as though they needed to sacrifice major aspects of their lives to ensure their game status was preserved. One of the first areas reported to be sacrificed was relationships. Similarly, one of the most consistently measured indicators of problem gaming in screening instruments is the negative effect on partners (King, Haagsma, Delfabbro, Gradisar, & Griffiths, 2013). However, the gaming literature has tended to rely on self-report data from gamers and has not provided much insight into these potential harms from the perspective of partners of gamers.

Harms can be experienced by those close to someone with an addiction due to the individual's resources (e.g time and money) being diverted away from commitments to work, education and family (Orford, Templeton, Velleman & Copello, 2005, 2010). Problem gamblers appear to 'pass on' about half of the harms they experience to those around them (Browne et al., 2016). Given that spousal connections are often the strongest between individuals, it is understandable that such individuals may bear most transmitted harms (Browne et al., 2016). There is inadequate literature that investigates the potential "passed on" harms to those close to a problem gamer. The limited research suggests that partners of gamers might experience psychological distress, relationship conflict, lack of communication, loss of sleep, worrying, frustration, resentment, lack of intimacy, financial



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difficulties and having responsibilities “passed on” from the problem gamer (Coyne, Busby, Bushman, Gentile, Ridge & Stockdale, 2012; Hertlein & Hawkins, 2012; Lianekhammy & van de Venne, 2015; Northrup & Shumway, 2014).

An individual’s coping strategies are likely to play a crucial role in how the stress associated with their partner’s problem gaming is experienced and managed. This is because certain coping strategies may help to reduce some of the impacts on well-being, health and functioning experienced because of stress (Orford, Velleman, Natera, Templeton, & Copello, 2013). The stress-strain-coping-support model (SSCS) (Orford et al., 2010) is based on work conducted by Folkman and Lazarus (1984) and proposes that stress can have a large impact on the health and well-being of family members of those with addiction. The SSCS model also maintains that coping can mediate the relationship between stress and harm to health experienced by family members. The coping efforts used to deal with stress associated to the problem gamer will most likely be directed at altering the situation itself and/ or regulating internal distress (Lazarus & Folkman, 1984; Meyer, 2001). As a situation becomes viewed as more stressful and “uncontrollable”, coping strategies can often become less directed at taking- action and more focused on regulating distress (Chan, Dowling, Jackson & Shek, 2016; Dijkstra & Homan, 2016; Litman & Lunsford, 2009; Lorenz & Shuttlesworth, 1983). These so-called ‘Emotion-focused’ coping strategies are generally viewed as less adaptive because they are associated with worse health outcomes (Meyer, 2001).

The current study investigates five domains of harm that could be “passed on” to partners of problem gamers (relationship, emotional, health, work and financial). The approach to harm assessment was guided by Browne et al., (2016) who investigated gambling-related harm experienced by others and provided a comprehensive framework of harm in a behavioural addiction. The coping strategies used to deal with prolonged stress could influence the resultant harm to well-being and the functioning of the individual.

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Therefore, the current study also seeks to understand what coping strategies are most frequently used by partners and which type of strategies could predict any harms experienced. Investigating severity of harm that may be “passed on” will help to distinguish which negative consequences are most salient amongst the minority of individuals who are impacted by someone’s problem gaming. Furthermore, understanding of how individuals may cope with stress associated to IGD in a partner, and may help to identify which coping strategies are most useful for minimising harm resultant from stress in this situation.

### **1.2 What is Internet Gaming Disorder?**

The APA has proposed nine distinct criteria for IGD. The criteria include : (1) preoccupation with Internet gaming; (2) withdrawal symptoms when Internet games are taken away; (3) tolerance: the need to spend increasing amounts of time engaged in Internet gaming, (4) unsuccessful attempts to control Internet gaming use; (5) continued excessive Internet gaming despite knowledge of negative psychosocial problems; (6) loss of interests, previous hobbies, entertainment as a result of, and with the exception of Internet gaming use; (7) use of the Internet gaming to escape or relieve a dysphoric mood; (8) has deceived family members, therapists, or others regarding the amount of Internet gaming; and (9) has jeopardised or lost a significant relationship, job, or educational or career opportunity because of Internet gaming use (APA, 2013; Starcevic, 2013).

The DSM- 5 and the International Classification of Diseases and related health problems (ICD-10) both refer to functional impairments associated with IGD, but do not provide extensive detail on negative consequences, particularly in relation to partners of gamers (APA, 2013; Colman, 2008). For instance, the loss of previous interests, the deception of family members and continued use despite awareness of negative psychosocial consequences are likely to affect partners. Furthermore, the causal connections between

gaming and each criterion, remain undefined (Kowert, Vogelgesang, Festl, & Quandt, 2015; Lemmens, Valkenburg, & Peter, 2011). For instance, criterion nine, losing a significant relationship could be both a cause and consequence of pathological gaming. Continued investigation is needed to analyse the severity of harm that may be “passed on” to those around gamers. Some wider perspectives of harm, beyond a self-report, could contribute to a more comprehensive understanding of the consequences of IGD and may aid distinction from the predictors of IGD.

### **1.3 The Investigation of Harm in Others**

A conceptual framework of harm that encompasses the wider social impacts of IGD does not currently exist. Harm can be defined as having negative consequences (health, psychological, social, financial, work) caused by a behaviour, that occurs at many levels, including the individual, family, friends and wider community (Browne et al., 2016; Neal, Delfabbro, & O'Neil, 2005). Harm to various domains such as relationships has been reported by gamers themselves, but rarely do studies survey the other side of the partnership in understanding these harms. This lack of “affected others” perspectives has also been noted in gambling research (Dowling, Suomi, Jacson & Lavis 2015; Krishnan & Orford, 2002). Failing to consider the perspectives of those around the gamer may lead to underestimates of the scale and severity of problems caused by IGD and the problem gaming. Cole & Griffiths (2007) indicated that only 20% of their sample of 912 Massively Multi-Player Online Role-Playing Game (MMORPG) players felt that gaming had negatively affected their offline relationships. This figure contrasts with work presented by Ahlstrom, Lundberg, Zabriskie, Eggett and Lindsay (2012) who reported 70-75% of partners of MMORPG players indicated that gaming had negatively affected their marital relationship.

### **1.3 Displacement of Time Due to Gaming as a Mechanism Leading to Harm**

One of the mechanisms by which harm may occur is via the displacement of time normally used for fostering close relationships- often called the- ‘displacement hypothesis’ (Kraut et al., 1998). The ‘Enhancing Online Safety for Children’s Safety’ Act passed by the Australian Government recommends that teenagers should have no more than 2 hours a day of screen-time (Saunders & Ireland, 2016). This recommendation was used to promote the avoidance of harm, such as psychosocial consequences, associated with extended screen time. In adult relationships, where responsibilities are higher, habitual gaming is likely to displace activities relevant to relationship functioning. Ogletree and Drake, (2007) found that gamers who spent more than 24 hours a week gaming would often displace time with their partner to game. Ng and Wiemer- Hastings (2005) and Yee (2006) also reported that those who are married and with children, typically play for 20 or more hours a week, with much of playing occurring at night. In a qualitative study Lianekhammy & van de Venne (2015) reported that wives of gamers described trying to play games to spend time together, this did not appear to improve relationship satisfaction. Coyne et al., (2012) investigated the effect of video-games on 1,333 couples. Gaming was only viewed positively when both individuals in a partnership gamed regularly. Non-gaming partners felt ignored and/or unappreciated because of time-spent gaming. Ahlstrom et al., (2012) also reported that how couples perceived the gaming was more influential in relationship harm than time-spent gaming itself. These findings indicate that it may not be time-spent gaming itself that contributes to negative consequences “passed on” to partners, but rather, the extent to which gaming impedes on time that couples or families share together. All studies reported that conflict over time-spent gaming only began when expectations regarding time-spent together in a partnership were not met. Moreover, a diversion of resources away from financial, family and work responsibilities, due to gaming could also create extra stress for partners.

### **1.4 Acknowledging Healthy Gaming in Relationships**

Gaming is often viewed as an enjoyable recreational activity, and not inherently harmful, which means assessing the impact of gaming on people's lives is not always straight-forward. Some research has indicated that there are positive effects of gaming on relationships. Mitchel (1985) reported that, within family relationships, gaming together can create a feeling of togetherness which enhances family functioning. Ahlstrom et al., (2012) reported that if both sides of the partnership enjoyed gaming, co-playing improved relationship satisfaction, as partners spent more time together and communicated more frequently. Lastly, Scott, Mottarella, & Lavooy (2006) identified that many the players in their study, enjoyed playing MMORPGs such as World of Warcraft (WOW) with their family and friends. Games such as MMORPGs, however, provide a highly social online experience, require extensive devotion to characters, and are often greatly time consuming (Ahlstrom et al., 2012). Some authors have thus suggested that a useful indicator of potential problematic gaming is whether the gamer plays games to escape from real-world interactions and responsibilities, rather than as a way of enhancing real world relationships (Cole & Griffiths, 2007; Hussain, & Griffiths, 2009).

### **1.5 Relationship Harms in Partners of Gamers**

Relationship harms are a common feature of IGD. Many heavy gamers report, for example, a significant reduction in intimacy because of gaming instead of spending time with a partner (Lo, Wang, & Fang, 2005; Scott et al., 2006). Ahlstrom et al., (2012) reported that conflict and retiring less frequently to bed together due to gaming at night contributed to reduced intimacy. Research assessing partners of gamers perspectives also indicate notable problems with intimacy due to gaming (Lianekhammy & van de Venne, 2015; Northrup & Shumway, 2014). In these studies, women reported feeling resentful because they desired

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more attention from their partners for their children and themselves. The lack of intimacy left non-gaming partners feeling “invisible” and under-valued in the relationship. Such findings suggest that problem gaming may be a contributor to relationship dysfunction because decreased intimacy can often leave a partner emotionally and physically neglected.

A breakdown in communication is also commonly reported by gamers and their partners. Tomuletiu, Oroian, Girbovan, Buicu, and Gyorgy (2014) indicate that open and honest communication involves couples listening to each other’s perspectives, without a defensive attitude and contributes to the formation of a capital of positive feelings (Tomuletiu et al., 2014). Problem gaming has the potential to create a negative communication style between couples. IGD can entail, for instance, the deception of family members, regarding the amount of time-spent gaming (APA, 2013). Furthermore, partners of gamers have reported their partner withdrawing from face-to-face relationships in favour of online social interactions (Northrup & Shumway, 2014), and gamers themselves have reported a preference for interacting with those in the game as opposed to their real-world relationships (Ng & Wiemer- Hastings, 2005). Where either side of the partnership withdraws from the relationship, a breakdown in commitment to overcome problems together could occur. Therefore, there are a range of factors associated with problem gaming that could lead to communicational barriers between couples. However, it is possible that lack of communication may be attributable to reasons other than gaming (e.g individual characteristics, such as personality), or there may be other salient factors (i.e third variables) that underlie the gaming behaviour that accounts this relationship.

Another relevant type of relationship harm that is reported in the literature, is an increase in responsibilities experienced by partners. Some individuals report compensating for their gaming partner’s absence by taking on extra roles and responsibilities in the household (Lianekhammy & van de Venne, 2015) and express complaints about managing

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family finances and having little help with children and household duties (Northrup & Shumway, 2014). These findings are consistent with problem gambling research where responsibility neglect often leads to gamblers relying on those around them to absorb their duties to compensate for their time and money investment in their addiction (Browne et al., 2016; Dowling et al., 2014). Furthermore, individuals who are preoccupied with gaming may have a lack of awareness about how much their gaming is affecting their partner. This could create both increased stress for non-gaming partners and conflict within relationships. In summary, harm to the relationships, such as lack of intimacy, communication and increased responsibilities for the non-gaming partner have been reported in some limited research studies. Further investigation is needed to identify the strength of these effects.

### **1.6 Health and Emotional Harms in Partners of Gamers**

An intimate relationship with an individual with IGD is likely to lead to emotional and health harms experienced by those close to gamers. Health-related harms may consist of stress-related health issues, which may manifest as headaches, loss of sleep due to worrying about partner's behaviours, eating irregularities or substance use. Emotional harms may include feeling worried, overwhelmed by responsibilities, insecure, ashamed or isolated due to a partner's gaming behaviours. It seems likely that chronic gaming could become a source of stress for partners which could manifest in harm to physical and psychological health. Lazarus and Folkman (1984) attribute stress to two types of events: daily hassles and major life events. Daily hassles, are often repeat occurrences that can include arguments, financial stress and family worries (Lazarus & Folkman, 1984). Prolonged stress may manifest itself in either physical and/or psychological symptoms (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982). These stressors are superior to major life events in accounting for psychological and physical symptoms attributable to stress (Lazarus & Folkman, 1984).

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A daily hassle could be the video-gaming behaviour of a partner. At first, an individual's gaming may be occasionally irritating, but as gaming escalates, a partner may become overwhelmed by the stress, due to relationship difficulties and building responsibilities. In line with the SSCS model (Orford, 1992; Lazarus & Folkman, 1984), stress could become increasingly detrimental to the health and well-being of partners. Lorenz and Yaffee (1988) examined emotional and health harm in wives of gamblers. Wives reported feeling anger, depression, loneliness, confusion and several physical symptoms including faintness, hypertension, bowel irregularities and breathing difficulties. There are also findings that suggest greater health care utilisation in individuals with a chemically dependent family member compared to controls (Lennox, Lennox, & Holder, 1992). Although, evidence from another study on 100 family members of those with an addiction, did not report greater health care utilisation and physical morbidity (Lee et al., 2011).

Partners of problem gamers have reported a lack of sleep, stress-related symptoms and the acquisition of unhealthy lifestyle behaviours, such as smoking, to deal with stress (Northrup & Shumway 2014; Lianekhammy & van de Venne, 2015). Individuals have reported feelings of anger, frustration, hopelessness and isolation because of their partners excessive gaming (Northrup & Shumway, 2014). Lorenz and Shuttlesworth (1983) suggest a sense of helplessness, experienced by partners of gamblers when they have difficulty dealing with the behaviour, lack trust within the partnership, experience financial pressures, and lack support resources. Feelings of helplessness over a partner's gaming, could increase stress and decrease functioning. Subsequently, because harm to health, emotions and relationships are strongly associated, it is relevant to assess each harm associated to gaming to get a comprehensive understanding of the which harms are most strongly experienced by partners of gamers.



### **1.7 Financial and Work Harms in Partners of Gamers**

Financial harms associated to gaming are currently less well understood. There is no reference to financial expenditures associated with IGD in the DSM-5 (APA, 2013). This may be because gaming generally has a low cost of entry and minimal running costs, in comparison to other addictions. Financial harm associated to gambling may be more consequential in terms of loss of savings, loss of major assets and bankruptcy because of its repetitive nature. Although, as gaming becomes more severe increased spending may be the first sign of developing IGD (Kuss, & Griffiths, 2012). There is potential for some people to spend substantial amounts of money on games, as their pre-occupation increases. For instance, upgrade of equipment, new technology, and micro-transactions, put together, could create financial disturbance. These types of expenditures could affect partners of gamers, especially those that are living together and share financial responsibilities. Few women have commented about their husband's expenditures on gaming-related items such as gaming equipment or subscription fees, which their family could not afford (Northrup & Shumway, 2014; Lianekhammy & van de Venne, 2015). Husbands often spent money without the knowledge of their partner, and wives felt they were ignored when they made attempts to confront their husband about his spending (Lianekhammy & van de Venne, 2015).

In situations where finances do become limited, due to gaming expenses and related reasons, problem gaming can also affect work performance of the non-gaming partner. In gambling studies, work harms such as absenteeism and underperformance have been reported by those close to gamblers (Browne et al., 2016; Dowling et al., 2014; Li et al., 2016). Lee et al., (2011) also reported that half of their sample reported that their work was affected by a family member's addiction. No study has directly investigated the work impacts related to being a partner of a problem gamer. There, is however, some literature that reports on

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problems at work for the gamer that have influenced their partners. Lianekhammy, & Van de Venne, (2015) identified that gamers often missed work, due to lost sleep over excessive time-spent gaming. Further, in Northrup & Shumway's (2014) analysis, one participant identified working all day and night, only to come home to her partner who had been gaming all day. Other participants identified a decrease in work ethic in their partners, who sometimes skipped work to play. It seems reasonable to expect that in these cases that there may be a greater burden on partners to take on additional work responsibilities to compensate. It may be, however, that where stress is prolonged, reduced work performance and absenteeism may become an issue for a partner of a problem gamer.

### **1.8 The Importance of Coping in Harm Research**

The stress- strain-coping model (SSCS, Orford et al., 2010) recognises the large role coping can play in resultant threats to health and well-being in family members of those with an addiction. The severity of IGD for a gamer, therefore, may not necessarily provoke the same level of harm experienced by partners of gamers. It may be that the prolonged dysfunctional behaviour associated with gaming, could result in experiences of stress for partners of gamers. If coping skills are inadequate for dealing with stress, then the propensity for harm by partners of gamers may increase. Krishnan & Orford (2002) analysed the SSCS perspective in a qualitative study of sixteen family members (including spouses) of gamblers. Semi-structured interviews confirmed the SSCS model, previously applied only to substance use problems. Additionally, family-based coping skills programs are well established for improving coping strategies and reducing psychological distress among partners of pathological gamblers (Howells, & Orford, 2006; Rychtarik, & McGillicuddy, 2006; Orford et al., 2010; O'Farrell, & Clements, 2012). Therefore, inquiry into how partners cope with gaming related stress may shed insight into why they experience harms associated with

gaming and which coping strategies could aid reduction of those harms. Ultimately, additional research into this area may help for the development of coping-skills based recovery programs for problem gamers and their partners.

### **1.9 What is Coping?**

Coping refers to a person's cognitive and behavioural efforts to manage demands that are appraised as exceeding the resources of an individual (Lazarus & Folkman, 1984). There are several ways to measure coping, although many conceptualisations generally make a distinction between problem-focused or emotion-focused coping (Carver, 1997). This distinction is grounded in Lazarus and Folkman's (1984) transactional model of coping. This model maintains that coping is stimulated when disequilibrium between the person and their environment motivates people to do something to restore balance (Scheck, Kinicki & Davy, 1997). Scheier, Weintraub, & Carver, (1986) describe that problem-focused coping can be used to restore balance by acting to directly remove the stressor. These strategies may include problem-solving, seeking both instrumental and social support, planning or acting (Kasi et al. 2012). Comparatively, emotion-focused coping is an attempt to regulate emotional distress associated with a stressful situation (Scheier et al., 1986). These strategies may include denial, substance use, behavioural disengagement or self-distraction (Kasi et al. 2012). When managing stressful situations, it is reported that people use both forms of coping (Lazarus & Folkman, 1984; Carver, 1997). Problem-focused coping strategies are generally more likely to arise in situations where people believe that something can be done about the situation and emotion-focused coping strategies are more likely to be used when an individual feel as though the situation is one that must be endured (Scheier et al., 1986).

### **1.11 The Impact of Psychological Distress on coping**

Although both types of coping strategies are used by individuals in different contexts, certain factors, such as psychological distress, can influence which coping strategy are more likely to be used. Scheier et al., (1986) indicate that optimists are more likely to use problem-focused coping strategies because they have more favourable outcome expectancies. As an individual's gaming becomes chronic, their partner may feel as though no action can be taken to make their partners behaviour change and may have less favourable outcome expectancies. This could lead to higher endorsement of emotion-focused strategies of coping. Lorenz and Shuttlesworth (1983), investigated 144 partners of gamblers. The majority (84%) considered themselves emotionally ill and 50% reported taking up dysfunctional coping strategies such as excessive drinking, smoking, under/overeating and or impulsive spending to cope with their partner's gambling problems. Chan et al., (2016) conducted a study on 103 family members of gamblers, the majority (73%) reported psychological distress, poorer quality of life and general health. Impacts experienced were significantly and positively associated with all coping strategies. Although, when individuals viewed their situation as 'uncontrollable', they were more likely to use emotion-focused strategies, such as behavioural disengagement (Chan et al., 2016). Other evidence supports the idea that as prolonged stressors become labelled as "uncontrollable" and psychological distress builds, problem-focused coping strategies are used less by individuals to cope with stress (Dijkstra & Homan, 2016; Litman & Lunsford, 2009).

There is very limited literature related to possible coping strategies of partners of gamers, although the available research suggests that problem-focused strategies are useful for reducing distress. Lianekhammy & van de Venne (2015) identified that some wives of gamers often consoled each other on online forums to feel less alone. Others indicated that

seeking advice from family members and trying to improve their communication skills with their partner helped. Studies that examine the effectiveness of a range of coping strategies, using a standardised measure, in a group of individuals close to gamers are insufficient, warranting further research.

### **1.12 Emotion-focussed coping as a predictor of harm**

Emotion-focussed coping strategies are generally considered to be less adaptive and have been associated with poorer health outcomes because they are considered to ignore the root cause of the stress and heighten the individual's vulnerability to negative consequences (Dijkstra, & Homan, 2016; Meyer, 2001; Penley, Tomaka, & Weibe, 2002). Emotion-focused coping entails greater risk for harm because it involves individuals trying to seek out dysfunctional ways of altering their emotional state (Penley et al., 2002). Maladaptive strategies for emotional regulation, such as substance use and behavioural disengagement, can have a negative impact on multiple aspects of life including work, relationships, finances, and health (Penley et al., 2002). A tolerant-inactive coping style, characterised as "putting up" with someone's addiction and accepting it, rather than trying to make a change and be assertive towards a loved one is also associated to strain (Lee et al., 2011). In two independent meta-analyses, it was reported that emotion-focused coping was more strongly associated to psychological outcomes than it was to physical health (Clarke, 2006; Penley et al., 2002). Despite these converging findings, Carver & Connor-Smith (2010) and Nielsen & Knardahl (2014) argue that there is no clear consensus on the structure and stability of coping strategies and which coping strategies are effective for preventing future difficulties or relieving emotional distress, because of the lack of longitudinal data in the area and the various ways of measuring coping. Litman and Lunsford (2009) describe, for example, that seeking support (generally categorised as problem-focused), although helpful, can sometimes

add to distress if others don't understand or the individual must admit their weaknesses.

Further inquiry is needed into the effects that the employment of emotion-focused strategies can have on resultant harms experienced by partners of gamers.

In summary, there is a range of coping strategies could be used by individuals to cope with the stress of their gaming partner. Problem-focused coping strategies that involve direct action are thought to be more successful in avoiding negative outcomes. However, this form of coping can often be difficult to apply in times of severe stress, such as when a situation is perceived as uncontrollable. Although indicated as useful, other problem-focused strategies such as support seeking may also be difficult for partners of gamers because they may feel as though others do not understand their experience or the absence of adequate support. Partners of problem gamers may turn to emotion-focused strategies to relieve psychological distress. Some evidence suggests that employing these strategies is detrimental to health and well-being.

### **1.13 The current study**

Previous studies have indicated detrimental impacts associated with excessive video-gaming, from the perspective of the problem gamer. This work has been influential to the development of the current conceptualisation of IGD, with its emphasis on the intrapersonal distress experienced by the gamer. However, there is a gap in the literature in terms of the transmitted or "passed on" harms associated with IGD, especially in relation to partners of problem gamers. The SSCS model (Orford et al., 2010) suggests that harm to health and well-being can be experienced by family members of individuals with an addiction. The limited evidence base has reported that harm experienced by partners of gamers may include negatively affected relationships, physical and psychological health, work and finances. To

build on this emerging literature, the current study sought to investigate how gaming impacts partners of gamers from their perspective.

In addition, this study aims to understand coping strategies used by partners because the relationship between stress and consequent harms experienced, is influenced by the way individuals cope with stress (Orford et al., 2010). By employing the brief COPE scale, emotion and problem-focused coping strategies could be assessed. Ascertaining if any harms are associated to being partnered to a problem gamer will help to inform current literature regarding the wide range of potential negative interpersonal consequences that problem gaming could create. Identifying coping strategies that could influence harm experienced and psychological distress may aid understanding of how partners of problem gamers may deal with the situation. If harms experienced by partners are predicted by emotion-focused coping, then the identification of alternative coping strategies for dealing with stress and preventing harm may be identified.

### **1.14 Aims and Hypotheses**

The first aim of this study was to examine what types of harms are associated with being a partner of a video- gamer, who is perceived (by their partner) as having IGD. The second aim was to explore what coping strategies were most frequently used by partners of gamers to cope with stress associated with gaming. Additionally, to investigate if emotion-focused coping was predictive overall harm, beyond what was already predicted by time-spent not gaming together, IGD score and psychological distress.

It is hypothesized that:

1. Individuals who classify their gaming-partner as having IGD will report greater harm, as determined by the overall score in the five domains, than those who had non-IGD partners.

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2. Respondents who have partners that game independently (without including them) for more than 20 hours/week will experience greater relationship harm and impact on time spent together than those who have partners that do not game for more than 20 hours/week without them.
3. Respondents with partners classified as having IGD will score significantly lower on intimacy, communication and higher on having responsibilities passed on compared to individuals who had non-IGD partners.
4. Individuals with partners as classified having IGD group, who report greater psychological distress, will use greater emotion-focused coping and fewer problem-focused coping strategies, than individuals who report being less psychologically distressed.
5. Emotion-focussed coping will be predictive of overall harm, controlling for IGD, time spent gaming and psychological distress.



## CHAPTER TWO

### Methodologies

#### 2.1 Participants

A cross-sectional online survey was used to collect data from 359 participants, aged between 18 and 59 years ( $M (SD) = (24.4(6.72))$ ). Participants were recruited from an online convenience sample (online forums, Facebook, snowballing), and from the University of Adelaide first year psychology student pool, who took part in the study for course credit ( $n = 80$ ). General community participants went into a draw to win one of ten \$50 Coles/ Myer vouchers. All participants were required to live in Australia, speak English, be 18 years or older and have a partner that video games regularly (at least once a week). Most participants were partnered (57%) or in Defacto (24%) relationships to a gamer, lived with their partner (63%), and had at least one child (76%) (see Table 1.). Informed and signed consent was required by every participant before the study commenced. In total 88 participants were excluded from the study, prior to data analysis. These participants were excluded because they did not reach the IGD checklist, which was a variable necessary for all statistical tests. This left 271 participants for data analysis (Female=244, Male=26, Other=1).

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Table 1  
*Characteristics of participants (N=271)*

Characteristic	<i>n</i>	%
Gender		
Male	26	9.60
Female	244	90.00
Other	1	0.40
IGD in partner		
No	222	81.90
Yes	49	18.10
Relationship Status		
Partnered	155	57.20
Married	35	12.90
DeFacto	66	24.40
Single	15	5.50
Relationship Length		
Less than 6 months	24	8.90
6 months-12months	44	24.40
1 year to 3 years	84	31.00
3-6 years	60	22.10
6 + years	59	21.80
Living together		
Yes	171	63.10
No	100	36.90
Have Children		
Yes	205	75.60
No	66	24.40

## 2.2 Materials

Participants completed an online self-report survey (Appendix A). The questionnaire contained 57 items that assessed a wide range of demographics, perceived IGD severity in the partner, details of gaming behaviours, gaming related harms on five domains and the types of coping strategies they use under stress.

**2.3.1 Demographic information (19 items).** Participants were asked demographic questions concerning their age, gender, relationship status, employment status, income

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bracket, the highest level of education and nationality and country of residence. Participants were also required to answer the same demographic questions about their partner (to the best of their knowledge). Additional questions were asked regarding the length of time of the relationship, whether the couple lived together, how long they lived together and who with.

**2.3.2 Gaming behaviours (13 items).** Participants were asked to record and estimate of how many hours their partner gamed in a typical week including hours (if any) that they gamed together. Participants were then asked questions about the genre and location of game playing as well as who the gamer usually gamed with (i.e alone, with friends, with family). Additional questions were concerned with how long their partner had gamed for, how frequently the gamer played at night, if they could speak openly and respectfully with the gamer about their gaming and what overall degree of negative impact the gaming had on their time spent-together.

**2.3.3 Internet Gaming Disorder Checklist (9 items).** A modified version of the IGD-20 Checklist developed by Petry et al., (2014) was used to measure the perception of gaming severity in partners of gamers. Petry et al (2014) described the intended meaning behind each of the nine DSM-5 criteria for IGD, and presented a single item that best reflects each criterion. Participants were asked to complete the questionnaire, whilst thinking about their gaming partner. For example, “do you notice *your partner* feeling restless, moody, irritable, mood, angry, anxious or sad when attempting to stop gaming, or when they are unable to play?”. The DSM polythetic cut-off scoring (e.g. meet five of nine criteria for positive diagnosis), was used as a threshold to determine the identification of perceived IGD in this questionnaire.

**2.3.4 Gaming- related harms.** All harm questionnaires were modified versions from the Victorian study on assessing gambling-related harm (Browne et al., 2016). Each harm was analysed using questionnaires containing a varied number of items. The relationship

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questionnaire contained 12 items ( $\alpha=0.96$ ), emotional harm scale contained 8 items ( $\alpha=0.94$ ), health harm scale included 7 items ( $\alpha=0.86$ ), financial harms contained 3 items ( $\alpha=0.60$ ), and work harms were measured using 6 items ( $\alpha=0.90$ ). The internal consistencies for these measures were all high as indicated by the Cronbach's alpha scores, except financial harm. This was expected as the scale measured very mild to severe financial harm. All items in each harm questionnaire were assessed using a 5-point likert-type scale: 1 ("Never"), 2 ("Sometimes"), 3 ("Most of the time"), 4 ("Almost Always" and 5 ("Don't know"). Participants were also asked an overall question for the level of impact related to each harm (e.g to what extent do you feel as though gaming has impacted your emotional wellbeing during this time?). This was rated on a 4-point likert-type scale containing ("No", "Minor", "Moderate" and "Major") impact.

**2.3.5 Psychological distress (10 items).** Kessler Psychological Distress Scale (K10) (Kessler & Mroczek, 1994) was also used in the emotional impacts section of the survey. The K10 is a validated measure of current (last week) non-specific psychological distress. The scale comprises 10 questions asking respondents to indicate how frequently they experienced specific symptoms of psychological distress, such as nervousness, psychological fatigue and depression. Each item has a 5-point likert scale ranging from (1) none of the time to (5) all the time. The cut-offs used for classifying distress range from <20 no distress, 20-24 mild distress, 25-29 moderate distress and >30 severe psychological distress (Andrews & Slade, 2001). Reliability tests were conducted for the K-10 in the 2000 Collaborative Health and Well-being survey (Dal Grande, Taylor, & Wilson, 2000), The kappa and weight kappa scores ranged from 0.42 to 0.74, indicating moderate reliability.

**2.3.6 Coping strategies (28 items).** To measure coping strategies the brief COPE questionnaire was employed (Carver, 1997). This measure indicates the types and frequency of coping strategies implemented by individuals in relation to situational or generalised

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stress. A 4-point likert-type scale was used for each item which ranged from 1 (“I haven’t been doing this at all”), 2 (“I’ve been doing this a little bit”), 3 (“I’ve been doing this a medium amount), to 4 (“I’ve been doing this a lot”). Items measured problem-focused coping (active coping, planning, using instrumental support, religion, humour, positive reframing, acceptance) and emotion-focused coping (self-distraction, venting, self-blame, behavioural disengagement, denial, humour, positive reframing and substance use) (Gok, Musabak, Tuncay, & Kutlu, 2008; Kasi et al. 2012). Composite scores for each coping strategy are obtained by summing the scores on the relevant items. Cronbach’s alpha was used to determine the justification of interpreting scores that have been aggregated together (problem and emotion-focused) within the brief COPE ( $\alpha = 0.85$ ,  $\alpha = 0.80$ ).

### **2.3 Procedures**

Forum Participants were invited to participate in the study through invitations posted online, containing a link to the survey (Appendix A). This was posted on selected Australian forums and Facebook pages related to video-gaming or relationships. The first-year psychology students at the University of Adelaide were also invited to take part in the study via email (Appendix B). All participants were given the same invitation, information and consent forms to partake in the study (Appendix A & B). The survey (Appendix A) was completed by participants online in their own time and were given an option to be sent a summary of results via email. Participants were also made aware of mental- health resources (e.g Lifeline and Beyond Blue) and told they could ask questions or give feedback to researchers. This survey was hosted by Survey Monkey from April to July 2017.

### **2.4 Ethical Considerations**

Ethics approval was obtained through the Human Research Ethics Subcommittee at the University of Adelaide (ID:17/53). All participants in this study were self-selected. Participants were reassured that answers would remain anonymous and that they would not

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be identifiable. Participants were given the opportunity to withdraw at any time during the survey. Additionally, details of mental health services such as Beyond Blue and Lifeline were provided in case any distress occurred when participating in the study. Participants were also informed they could contact researchers with any queries or feedback about the study and were told they could access the results of the study upon completion.

## CHAPTER THREE

### Results

#### 3.1 Data analyses

All analyses were conducted using SPSS software Version 24. When testing for normality all variables significantly deviated from normality using the Kolmogorov-Smirnov and Shapiro-Wilk tests. Histograms, Q-Q plots, skewness and kurtosis scores were examined. All harm measures were positively skewed. Inspection of box plots, histograms and 5% trimmed means revealed that outliers were significant. Outliers were not removed, because these were expected for the population under inspection. Analysis of a pathological population within the general community will usually result in low means and outliers.

As assumptions were primarily violated, bootstrapping was used for each test conducted (Pearsons, t-tests, and regression). Which were bootstrapped one thousand times using the bootstrap function in the SPSS software package. Efron's (1987) bias-corrected and accelerated method (BCa) was used to calculate the confidence intervals for each test. This was done to enhance the accuracy of interpretation by allowing for standard errors and confidence intervals to be reported for each test-statistic of interest.

#### 3.2 Power analysis

A priori power analysis was performed using G\*Power 3.1.9.2. This calculation indicated that for a two-tailed t-test with differences between two independent means, a sample size of 200 participants was required to achieve a power level of .80, detecting a moderate effect size (.40) when using a significance criterion of  $\alpha = 0.05$ . Therefore, the study had a adequate sample size for the primary analysis.

### 3.3 Descriptive Statistics

Descriptive statistics for each primary measure can be shown in Tables 2 and 3. The level of impact scores for each harm (represented as a percentage), indicate that overall harm to emotions was experienced most by partners, followed by harm to relationships (see Table 2). Table 2 also illustrates that individuals who classified their partners as having IGD experienced greater harm on all five domains. Inspection of means in Table 3 confirmed these results and indicated that both forms of coping strategies (emotion and problem-focused) and psychological distress were higher in individuals who classified their partners as having IGD, compared to those that didn't. Inspection of means also indicated that both samples indicated higher problem-focused strategies than emotion-focused strategies (Table 3). All coping strategies were more frequently endorsed by partners of gamers who had IGD, except for planning and positive reframing. The highest coping strategies used by most partners of gamers in the IGD group were self-distraction, acceptance, and venting (see Table 3). Although, group differences in the frequency of use of all coping strategies independently remained small.



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Table 2

*Frequency table of each harm as summarized by level of impact, for those with partners classified as having IGD and those with partners not classified as having IGD.*

Harm Variable	No Impact	Minor Impact	Moderate Impact	Major Impact
<i>1. Relationship harm</i>				
Total Sample (n=259)	42.10%(114)	33.90%(92)	10.30%(28)	9.20%(25)
IGD in partner (n=48)	0.00%(0)	24.50%(12)	28.60%(14)	44.90%(22)
No IGD in partner (n=211)	51.40%(114)	36.0%(80)	6.30%(14)	1.40%(3)
<i>2. Health Harm</i>				
Total Sample (n=248)	46.90%(127)	29.50%(80)	9.20%(25)	5.90%(16)
IGD in partner (n=49)	4.10%(2)	28.60%(14)	24.50%(12)	32.7%(16)
No IGD in partner (n=222)	56.30%(125)	29.70%(66)	5.90%(13)	0.00%(0)
<i>3. Emotional Harm</i>				
Total Sample (n=256)	42.10%(114)	28.80%(78)	13.70%(37)	10.00%(27)
IGD in partner (n=47)	2.00%(1)	12.20%(6)	30.60%(15)	51.00% (25)
No IGD in partner (n=222)	50.90%(113)	32.40%(72)	9.90%(22)	0.90%(2)
<i>4. Financial Harm</i>				
Total Sample (n=267)	69.00%(187)	18.80%(51)	6.60%(18)	4.10%(11)
IGD in partner (n=49)	42.90%(21)	24.5%(12)	18.4%(9)	14.3%(7)
No IGD in partner (n=222)	74.80%(166)	17.60%(39)	4.1%(9)	1.8%(4)
<i>5. Work Harm</i>				
Total Sample (n=248)	63.10%(171)	21.40%(58)	5.20%(14)	1.80%(5)
IGD in partner	32.70%(16)	30.60%(15)	18.40%(9)	8.2%(4)
No IGD in partner	69.80%(155)	19.40%(43)	2.30%(5)	.50%(1)

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Table 3

Mean (SD) values for each harm, coping strategies and psychological distress, in individuals who classified their partners as having IGD and those that did not have IGD.

Variable (Range)	No IGD in partner (n=222) Mean (SD)	IGD in partner (n=49) Mean (SD)	Total (N=271) Mean (SD)
<i>Harm measures</i>			
Relationship (12-48)	17.20 (5.47)	36.16 (7.83)	20.54 (9.36)
Emotional (8-32)	10.09 (3.04)	18.49 (7.73)	11.59 (5.32)
Health (7-28)	9.28 (2.66)	15.72 (4.89)	10.40 (4.00)
Financial (3-6)	3.45 (0.68)	4.55 (1.02)	3.62 (.845)
Work (6-24)	6.81 (1.63)	10.29 (4.99)	7.42 (2.90)
<i>Coping-strategy measures</i>			
<i>Total Problem-focused (0 - 61)</i>	27.93(13.65)	31.00(14.07)	28.48(13.75)
Acceptance	3.90(2.12)	4.50(2.25)	4.00(2.14)
Religion	2.31(1.40)	2.90(2.03)	2.42(1.55)
Planning	3.70(2.15)	4.37(2.30)	3.83(2.19)
Positive Reframing	3.62(2.04)	3.59(1.94)	3.62(2.03)
Instrumental support	3.47(2.10)	3.94(2.38)	3.55(2.16)
Active Coping	4.02(2.18)	4.06(1.99)	4.03(2.15)
Emotional Support	3.60(2.18)	3.90(2.37)	3.65(2.21)
Humour	3.30(1.20)	3.75(2.38)	3.38(2.06)
<i>Total Emotion-focused (0-48)</i>	17.61 (8.21)	23.86(11.52)	18.74 (9.20)
Self-distraction	4.03(2.12)	4.92(2.40)	4.19(2.20)
Venting	3.34(1.80)	4.45(2.34)	3.54(1.95)
Self-blame	3.30(1.94)	4.16(2.42)	3.45(1.73)
Behavioral disengagement	2.60(1.49)	4.26(2.32)	2.89(1.78)
Denial	2.12(1.18)	3.00(1.86)	2.28(1.37)
Substance Use	2.24(1.38)	3.06(2.31)	2.39(1.62)
<i>Psychological distress (10-48)</i>	20.14 (8.20)	29.30 (9.65)	21.8 (9.18)
<i>Hours gaming per week by gamer without partner</i>	19.24(15.03)	41.73(25.26)	23.31(19.33)

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Table 4

Pearson's correlation table between the outcome variables (harm) and the main independent variables (N=271).

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Gender																					
Age	-.15*																				
IGD in partner	-.16**	.28**																			
Length of relationship	-.21**	.51**	.14*																		
Living with partner	.19**	.35**	-0.07	-.47**																	
Total Hours Gaming	.21**	.19**	.41**	.15*	-.15*																
Night gaming	-0.10	.28**	.33**	.23**	.14*	.51**															
Time-Displacement	-.24**	.22**	.46**	.20**	-0.12	-.92**	.50**														
Impact on intimacy	-.24**	.38**	.64**	.29**	-.20**	.43**	.42**	.51**													
Impact on time together	-.29*	.34**	.52**	.33**	-.21**	.45**	.50**	.55**	.80**												
Passed on responsibilities	-.15*	.39**	.61**	.35**	-.26**	.38**	.35**	.45**	.68**	.64**											
Open and honest communication	0.40	0.19	-.23**	0.07	-.16*	-0.01	-0.03	.46**	-.25**	-.30**	-.24**										
Relationship harm	-.23**	.36**	.78**	.26**	-.17*	.49**	.39**	.38**	.82**	.76**	.80**	-.32**									
Health Harm	-.17**	0.12	.62**	0.08	-0.20	.43**	.30**	.39**	.61**	.60**	.59**	-.27**	.80**								
Emotional harm	-.16*	.16*	.61**	0.12	-0.12	.34**	.26**	.28**	.57**	.53**	.52**	-.29**	.71**	.64**							
Financial harm	-0.12	.18*	.51**	.17**	-0.03	.33**	.26**	.39**	.51**	.53**	.48*	-.26**	.60**	.51**	.39**						
Work harm	-0.06	-0.08	.46**	-0.07	-0.06	.27**	0.10	.28**	.29*	.28**	.37**	-.15*	.57**	.71**	.54**	.40**					
Total harm score	-.22**	.26**	.70**	.20**	-.13*	.53**	.35**	.53**	.77**	.74**	.72*	-.31**	.91**	.78**	.71*	.60**	.62**				
Psychological Distress	-.18**	-0.03	.39**	-0.06	0.04	.23**	.16*	.24**	.35**	.33**	.33**	.23**	.48**	.58**	.39**	.35**	.41**	.50**			
Problem-Focused coping	0.00	-0.06	.14*	.14*	.17**	0.20	0.03	0.20	0.02	0.02	0.20	0.20	0.20	0.07	0.08	0.07	.16*	0.10	0.09		
Emotion-focused coping	-.23*	-0.05	.38**	-0.03	0.08	.27**	0.12	.27**	.24**	.23**	.28**	-0.08	.39**	.44**	.30**	.25**	.44**	.40**	.51**	.65**	

e. \*\* Correlation is significant at the 0.01 level (2-tailed); \*. Correlation is significant at the 0.05 level (2-tailed); All significant results were confirmed using confidence intervals obtained from bootstrapping using the bias-corrected and accelerated method with 1000 iterations; Gender 0=Male, 1=Female; IGD 0=no IGD in partner, 1=IGD in partner.

### **3.4 Research aims of the current study**

The first aim of this study was to examine what types of harms are associated with being a partner of a video-gamer, who is perceived (by their partner) as having Internet Gaming Disorder. The second aim was to explore what coping strategies were most frequently used by partners of gamers to cope with stress associated with gaming. Additionally, to investigate if emotion-focused coping was predictive overall harm, beyond what was already predicted by time-spent not gaming together, IGD score and psychological distress.

### **3.5 Hypothesis 1: Five domains of Harm and IGD in Partners**

It was hypothesized that individuals who reported IGD in their gaming-partner would experience greater harm, as determined by the overall score of each harm, than those who had non-IGD partners. As shown in Table 4, having a partner with IGD was found to be associated with participants reporting harms (with correlation coefficients ranging from (.46\*\* to .78\*\*) and most strongly associated with experiencing relationship and health harms. Further analysis through independent samples t-tests were used to identify if there were group differences in the domains of harm. The Levene's test was significant for all harms, indicating that the assumption of homogeneity of variances was violated. All the test statistics related to each harm were analysed with equal variances not assumed. A summary of the independent t- test results is in Table 5. Overall, results indicated that participants who classified their partner as having IGD experienced greater harm on all five domains of harm compared to those who had non-IGD partners. These differences were strongest for relationship harms and lowest for work harms.

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Table 5

*Mean (SD) Values and Results from Independent Samples t-test between IGD and no IGD in partner and each five domains of harm and impact to intimacy, having responsibilities passed on and open and honest communication about gaming.*

Harm Variables	IGD in partner M(SD)	No IGD in partner M(SD)	t-test	df	95% BCa CI	Cohen's d	Total N
Relationship Harm	36.17(7.83)	17.20(5.47)	-15.92**	57.86	[-21.32 -16.49]	2.81	259
Health Harm	15.72(4.89)	9.28(2.66)	-8.48**	48.61	[-8.09 -4.95]	1.64	248
Emotional Harm	18.40(7.73)	10.09(3.04)	-7.25**	49.24	[-10.47 -6.24]	1.41	256
Financial Harm	4.55(1.02)	3.46(0.68)	-7.14**	57.88	[-1.39 -.799]	1.26	267
Work Harm	10.30(4.99)	6.81(1.63)	-4.58**	45.00	[-5.12 -2.08]	0.94	248
Impact on intimacy	3.33(0.11)	1.64(0.06)	-13.14**	269 <sub>a</sub>	[-1.93-1.45]	3.04	271
Open and honest communication	2.06 (0.11)	2.65 (0.07)	3.87**	84.7	[-1.93-1.45]	.651	271
Having responsibilities passed on	3.17(0.14)	1.52(0.06)	-11.96**	257	[-1.91-1.33],	1.80	259

*Note.* df = degrees of freedom; \*\*p < .01; BCa= bias corrected and accelerated, a- Levene's test was not significant, indicating that the homogeneity of variance was not violated in this instance (p=.642).

### **3.6 Hypothesis 2: Time displacement and Relationship harm**

It was hypothesised that respondents who have partners who game without them for more than 20 hours/ week will experience greater relationship harm and impact on time spent together than those who have partners that do not game more than 20 hours/week without them.

To test this hypothesis a new variable was created in SPSS to represent the amount of time the gamer played per week in isolation (i.e without their partner). This was calculated by multiplying the percentage of time-spent gaming together per week (expressed as a decimal) by the total hours spent gaming by the gamer per week. This variable (time-spent gaming together) was then subtracted from the total hours a week spent gaming by the gamer.

Participants were then categorised into two groups, those whose partners gamed without them for less than 20 hours/week (n=143) and those whose partners played without them for more than 20 hours/week (n=128). Two independent samples t-tests were conducted to analyse if relationship harm and impact on time spent together was experienced greater by those whose partners gamed without them for more than 20hours/week.

The t-tests indicated that those with partners who game for more than 20 hours/week without them experienced greater relationship harm ( $M= 25.30, SE=.977$ ) and impact on time spent together ( $M=2.95, SE=.086$ ), compared to those that did not have a partner who gamed for more than 20 hours/ week without them ( $M=16.87, SE=.528, M=1.93, SE=.070$ ). These differences,  $-8.43, BCa\ 95\% CI [-10.62, -6.24]$  and  $1.02, BCa\ 95\% CI [-1.24, -.807]$ , were statistically significant ( $t(182.28)=-7.60, p=.000$ ), ( $t(269)=-9.32, p=.000$ ). Both tests also represented large effect sizes  $d=3.04$ . For the first t-test (relationship harm) the Levene's test was significant, so data was analysed with equal variances not assumed. For the second t-test (impact on time spent together) the Levene's test was not significant, signifying homogeneity of variance. Therefore, results were interpreted with equal variances assumed.

### **3.7 Hypothesis 3: Impact to Intimacy, Communication and Passed on Responsibilities.**

It was hypothesised that respondents with partners categorised as having IGD would score significantly lower on intimacy, communication and higher on having responsibilities. Descriptive analyses (see Table 6), indicated that 49% of those in the IGD group experienced a “major effect” to intimacy, 55.1% indicated only “sometimes” communicating openly and honestly about gaming to their partner, and 50% reported “almost always” having responsibilities passed on to them. Independent samples t- tests were used to analyse the difference in open communication, having responsibilities passed on and impact to intimacy between those who categorised their partners as having IGD and those who did not.

The t-test findings as shown in Table 5 (see page 4 above) show that the mean differences between those that categorised their partner as having IGD and those that did not, were all significant. Additionally, all differences represented large effect sizes (intimacy ( $d=3.04$ ), communication ( $d=.65$ ), responsibilities ( $d=1.8$ )). This indicates that those who had partners with IGD ( $n=49$ ), experienced significantly greater negative impact on intimacy and having responsibilities passed on, and significantly lower open and honest communication compared to those who had non-IGD partners.

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Table 6. A summary of reported effects of gaming on open and honest communication, having responsibilities passed on and impact on intimacy for individuals with partners with IGD (n=49) and partners without IGD (n=222).

Relationship Variable				
<i>Open and honest communication about gaming</i>				
	Never	Sometimes	Most of the time	Almost always
Partners without IGD	12.2%	36.9%	24.3%	26.6%
Partners with IGD	22.4%	55.1%	16.3%	6.1%
<i>Having Responsibilities passed on</i>				
	Never	Sometimes	Most of the time	Almost always
Partners without IGD	64.9%	21.3%	10.0%	3.8%
Partners with IGD	8.30%	16.70%	25.0%	50.0%
<i>Impact to intimacy</i>				
	No Effect	Minor Effect	Moderate Effect	Major effect
Partners without IGD	54.1%	32.0%	9.9%	4.1%
Partners with IGD	2.0%	12.2%	36.7%	49%

### 1.2 Hypothesis 4: Emotion-focused coping and Problem-focused Coping and Psychological distress in Partners of Gamers

It was hypothesized that a) individuals who classified their partners as having IGD and were experiencing greater psychological distress, would use more emotion-focused coping strategies than those who classified their partner as having IGD but were experiencing less psychological distress b) those with partners with IGD group who were experiencing less psychological distress would also use more problem-focused coping strategies.

To test hypothesis four, participants who classified their partner as having IGD were divided into two groups based on their psychological distress scores: the low psychological distress group (score range=10-24) and the high psychological distress group (score range=25-50). The cut-offs used in this grouping were guided by Andrews and Slade (2001) who classify scores on the K-10 as (<20 no distress, 20-24 mild distress, 25-29 moderate distress



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and >30 severe psychological distress). These findings indicated that those who were experiencing greater psychological distress (moderate to severe) used more emotion-focused strategies of coping ( $M=27.16$ ,  $SE=2.05$ ), than those who were experiencing less (no to mild) psychological distress ( $M=20.43$ ,  $SE=1.82$ ). This difference,  $-6.72$ , Bca 95% CI  $[-11.75, -1.51]$ , was significant  $t(45) = -2.14$ ,  $p < 0.001$ , this represented a large effect size  $d = .70$ .

An additional independent samples t-test was used to investigate differences in use of problem-focused coping strategies according to the level of psychological distress (low or high). It was indicated that the two groups did not differ in the extent they used problem-focused coping strategies, low psychological distress ( $M=32.5$ ,  $SE=2.91$ ), high psychological distress ( $M=32.22$ ,  $SE=2.43$ ). This difference ( $.274$  Bca 95% CI  $[-7.39, 7.69]$ ), was not significant  $t(45) = .069$ ,  $p = .945$ . This represented a non-significant effect size  $d = .024$ . Indicating that individuals who classified their partner as having IGD used problem-focused coping just as much as emotion-focused coping, regardless of level of psychological distress (low or high).

### **3.9 Hypothesis 5: Emotion-focused coping as a Predictor for Harm experienced by Partners of Gamers**

To assess the predictive ability of emotion-focused coping on overall harm experienced by partners of gamers a hierarchical multiple regression was conducted. It was hypothesised that emotion-focused coping would be predictive of overall harm, controlling for time-spent gaming per week (not together), the presence of IGD, and psychological distress. Prior to conducting the regression, the relevant assumptions for this statistical analysis were tested. The sample size was sufficient to conduct the multiple regression as there were more than 20 cases per predictor (Tabachnick & Fidell, 2001). The Cooke's distance did not exceed one, indicating the outliers in the predictor variables were not detrimental to the test (Tabachnick & Fidell, 2001). All predictor variables did not present with multicollinearity by representation of the variable inflation factors and tolerance factors (Field, 2013). The outcome variable (a composite score of each of the five domains harm) did not violate normality, by inspection of the histogram. Analysis of the standard residuals indicated a slight deviation from normality. Inspection of the BCa confident intervals and standard errors ensured accuracy and reliability of interpretation (Field, 2013).

In the multiple regression analysis, step one included gender, age and relationship length. These variables were weakly correlated to harm (see Table 4) and were added to control for their effects. A significant regression equation was found ( $F(3, 244) = 7.64$ ,  $p < .001$ , with an  $R^2$  of .086. Indicating that 8.6% of the variance in overall harm was accounted for by gender, age and relationship length. Age was the only significant predictor (.097) in the model. After the addition of IGD, time-spent gaming and psychological distress in step two, gender, age and relationship length no longer added anything to the prediction of overall harm. A significant regression equation was found in step two ( $F(3, 241) = 104.4$ ,  $p < .001$ , with an  $R^2$  of .602. Indicating that 60.2% of the variance in overall harm was accounted for by IGD, time-spent not gaming together and psychological distress. Emotion-

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focused coping was added in step three of the model to identify its unique predictability of overall harm. Emotion-focused coping was not found to be a significant contributor to overall harm, above and beyond the variables entered in step two. Therefore, the hypothesis that emotion-focused coping was predictive of overall harm, was not supported ( $F(1, 240) = .937$ ,  $p = .334$ ,  $R^2 = .604$ ). The Bca 95% confidence intervals supported the interpretation of results (see Table 7).

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Table 7 Multiple regression for emotion-focused coping being predictive of overall harm experienced by partners of gamers (n=248).

Variable	$r^2$	R <sup>2</sup> Change	<i>B</i>	SE (B)	$\beta$	BCa CIs
<i>Step one</i>	.086**	.086**				
Gender			1.28	.67	.120	-.001-2.67
Age			.097**	.04	.191	.025-.175
Relationship length			.230	.20	.082	-.121-.559
<i>Step two</i>	.602**	.517**				
Gender			.146	.45	.034	-.509-.914
Age			.017	.03	.014	-.032-.069
Relationship Length			.240	.14	.085	-.042-.473
IGD			4.31**	.12	.264	3.22-5.57
Time-spent Gaming			.042**	.01	.220	.023-.059
Psychological Distress			.101**	.02	.468	.064-.136
<i>Step three</i>	.604	.002				
Gender			.121	.45	.011	-.551-.939
Age			.020	.03	.040	-.029-.072
Relationship length			.241	.14	.086	-.024-.464
IGD			4.23**	.47	.458	3.13-5.42
Time-Spent Gaming			.042**	.01	.216	.022-.058
Psychological Distress			.094**	.02	.245	.050-.132
Emotion Focused coping			.022	.02	.048	-.041-.084

Note., *df* = degrees of freedom; \*\**p* < .01; *B* = unstandardized beta coefficient, SE(B) = standard error,  $\beta$  = standardised beta coefficient, BCa = bias corrected and accelerated.

## CHAPTER FOUR

### Discussion

#### 4.1 Overview of the Main Findings

This study investigated harms associated with problem gaming and coping strategies (emotion and problem-focused) in partners of gamers. Individuals who classified their partners as having IGD reported greater harm on all five domains compared to those who had non-IGD partners, supporting hypothesis one. Emotional, health and relationship harms were reported most frequently, although “major” impacts on all domains were reported by a minority of individuals. Hypothesis two was also supported as partners of gamers who played for more than 20 hours a week experienced greater relationship harm and impact on time-spent together, than partners of gamers who played for less than 20 hours a week. This finding reinforced that time-displacement of activities, relevant to relationship functioning, could be one mechanism contributing to transmission of harm.

Hypothesis three, that individuals who had partners classified as having IGD would report greater impact to intimacy, communication and have greater “passed on” responsibilities, was supported. Hypothesis four was partly supported as partners of problem gamers who were more psychologically distressed reported greater use of emotion-focused coping strategies. They did not, however, employ fewer problem-focused strategies than those who were less psychologically distressed. Lastly, Hypothesis five was not supported as emotion-focused coping was not predictive of harm, beyond what was already accounted for by time-spent gaming, psychological distress, and IGD. Overall, this study could support aspects of the SSCS model (Orford et al., 2010), a model of addiction, not yet researched in the problem gaming area. The model was supported in two ways. 1) partners of problem gamers reported increased distress and decrements in physical and psychological well-being,

and 2) individuals experiencing greater distress also reported greater efforts to cope with their partner's problem gaming.

### **4.2 Research Findings**

**4.2.1 Aim 1: Harm in Partners of Gamers.** This study suggested that individuals who report more than five criteria of IGD in their partner experience greater harm on a range of life domains, compared to individuals who had non-IGD partners. Harms were positively correlated with each other, suggesting that disruption in one area of life is associated with distress in other areas of life, in line with previous findings related to gambling harm (Browne et al., 2016; Chan et al., 2016). Emotional and relationship harms were reported most frequently by the whole sample, although both groups differed in the degree harms were reported. For instance, 44.9% of individuals who identified their partners as having IGD reported a “major” impact on relationships, contrasted to the 1.9% of individuals who indicated a “major” impact on relationships who had non-IGD partners. In the whole sample, 53.9% of participants indicated that gaming had a minor, moderate or major impact to their relationships. This finding can be compared to Griffiths et al., (2011), who reported that 20.3% of gamers in their study thought gaming had negatively impacted their offline relationship. This outlines the need for continued investigation of problem gaming-related harm, beyond a self-report.

Individuals who had partners who gamed for more than 20 hours a week without them experienced greater relationship harm and perceived impact on time-spent together than those who had partners that gamed for less than 20 hours a week without them. These findings are consistent with Ng and Wiemer-Hastings (2005), Ogletree and Drake (2007), and Haung (2006), who reported that gaming became detrimental to interpersonal relationships once it exceeded 20 hours/week. The average reported time-spent gaming/week in this sample was

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23 hours, although 16.8% of the sample reported their partner gaming for more than 40 hours a week. Northrup and Shumway (2014) indicated that individuals in their study also reported the average time-spent gaming/week by their partners was 40 hours. It is unknown if partners were misreporting the amount of time-spent gaming a week. For instance, Ng and Wiemer-Hastings (2005) indicated that only 11% of gamers reported gaming for more than 40 hours/week. An investigation in the current study that divided time-spent gaming into three groups (i.e 0-20, 20-40, 40+ hours/week) may have provided precise measurement of the effects associated with time displacement on relationships.

Many partners of gamers in the IGD group (49%) reported gaming having a “major” impact to intimacy. Lorenz and Yaffee (1988), also reported that 48% of partners, indicated unsatisfactory sexual relationships because of time-spent gambling. Northrup and Shumway (2014) also reported that 90% partners of gamers indicated rare intimacy in their relationships caused partly by time displacement but also by individuals becoming resentful and angry about their partner’s gaming. As emotional harms, relationship harms, impact to intimacy and time displacement were all moderately and positively correlated in this study, findings in this study confirmed suggestions made by Northrup and Shumway (2014).

A lack of open and honest communication about gaming was also more frequently experienced by partners in the IGD group where one quarter identified as “never” speaking openly and honestly about their partners gaming. Findings support Lianekhammy and van de Venne (2015) where 30% of the participants in their study reported a lack of communication. Other relationship impacts, such as tension, unmet relationships standards, and deception within the relationship are likely to have exacerbated poor communication alongside time displacement and other factors unrelated to gaming (i.e. state of relationship before gaming). A lack of communication was less reported by partners of problem gamers than a lack of intimacy, i.e. effect size for differences between groups for intimacy was larger than that for

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communication. As only 26.6% of partners in the non-IGD group identified “almost always” communicating openly and honestly about gaming, the differences between communication may have been less apparent than those to intimacy because all individuals were less likely to communicate with their partners about gaming.

In this study, 50% of participants in the IGD group said they “almost always” experienced a passing on of responsibilities compared to 3.8% of individuals in the non-IGD group. This supports findings by Northrup and Shumway (2014) and Lianekhammy and van de Venne (2015) where many participants described an unequal distribution of responsibilities and compensated for their partner’s virtual absence by taking on extra household roles. This study confirmed this finding in a more robust sample size and provided the strength of the effects associated to “passed on” responsibilities. Having responsibilities passed on was weakly associated with psychological distress, indicating that there are likely to be other relationship factors alongside responsibilities contributing to stress.

In this study, 5.9% of partners reported a “major effect” to health, while the majority (46.9%) reported no effect to health because of gaming. For partners in the IGD group, a loss of sleep, undereating or overeating and experiencing reduced physical activity were experienced by approximately a quarter of participants. Health harms remained far less threatening in partners of gamers, compared to partners of gamblers. Browne et al., (2016) indicate, for instance, that “affected others” reported thoughts of suicide and self-harm. Partners of gamblers have also reported severe headaches, stomach illnesses and breathing problems (Lorenz & Yaffee, 1988). While health harms remained generally low impact in this study, health harm was moderately correlated with psychological distress. Physical ailments can be catalysed by psychological symptoms associated with stress (Lorenz & Yaffee, 1988). This evidence suggests that harms to health were only experienced by the minority of participants who were likely experiencing these symptoms because of stress.



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On average, those in the IGD group, experienced moderate psychological distress as categorised by the K-10. This finding was like Chan et al., (2016) who reported 61.8% of their sample experiencing moderate psychological distress, because of problem gambling. A common emotional harm reported was feeling distressed or angry about not being able to control a partners gaming. This was consistent with Northrup and Shumway (2014), where all participants reported feeling angry, stressed and resentful. It is likely that psychological distress was experienced after repeated attempts to try make their partner cut down on gaming (Northrup & Shumway, 2014). However, only 10% of the overall sample reported a “major impact” to emotional well-being. These findings indicate that psychological distress directly associated with gaming is most likely to occur in a minority of individuals. For vulnerable individuals, the excessive gaming of a partner could add to accumulative stress. Therefore, problem gaming in a partner may not be a primary source of distress, but rather a secondary factor that adds to pre-existing psychological distress.

While differences between groups in relation to financial and work harm remained significant, many participants did not experience any impact to financial and work-related harms (69% and 63%). The small number of participants (4.1%), who reported “major” financial harm because of gaming, can be contrasted to Lorenz and Shuttlesworth (1983) study, where 99% of the participants indicated financial troubles, and 73% had sought financial assistance because of their partner’s gambling. Browne et al., (2016) also indicated that many family members of gamblers reported bankruptcy and major financial loss because of gambling. In this study, 26.5% participants in the IGD group (n=49) indicated a “yes” response on all three domains of financial harm (spending less on recreational, beneficial, and essential expenses). It should be noted that because of the binary nature of the three items, there is limited detail on the degree to which each financial harm was experienced. Based on these findings, it is not likely that partners of gamers would gather debts or need financial

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counselling compared to partners of gamblers. It seems more likely that gamers may need help with time-management as time-displacement may have contributed to decreased availability to contribute to finances (e.g. unable to go to work because of gaming).

In this study, 8.2% of participants who identified their partner as having IGD experienced a “major” affect to work life. Reduced performance at work due to tiredness and distraction was the most frequently reported work harms by partners. This can be contrasted to Lee et al., (2011) where 47.5% of individuals felt as those they were negatively impacted vocationally by their family members gambling. While the impacts to work in this study remain small, Browne et al., (2016) also reported that reduced performance at work caused by tiredness and distraction was the most reliable work consequence for “affected others”. Work-related harm was most associated to health-related harm indicating that physical symptoms associated with stress can impede on their work-life for partners of gamers. Overall, work and financial harm were a) less experienced by partners of gamers, in comparison to partners with other addictions and b) were less reported by partners of gamers, in comparison to the other three harms.

Findings indicated that there is potential for difficulties to be experienced by partners of problem gamers. These difficulties are reported as “major” by the minority of individuals who indicated high functional impairments associated to IGD in their partners. The lack of a clear definition of IGD that defines the potential “passed on” harms that are most salient for those close to gamers makes it difficult to measure and compare the negative consequences associated with gaming. While there were some impacts to work and finances reported by partners, using a gambling related framework of harm may not be entirely applicable to this sample. It is recognised that what constitutes a problematic symptom in relation to one activity, is not necessarily problematic in a different context (Kardefelt-Winther, et al., 2017). Problem gaming can be harmful, although it is related to far fewer negative consequences

than other addictions (Kardefelt-Winther, 2014; Griffiths et al., 2016). In this study, for instance, 42-69% of participants indicated “no impact” across the domains of harm. Findings from this study were not able to determine if harm experienced by partners was a direct consequence of the behaviour (e.g. causal connections between IGD and harm) and if harms were experienced over a persistent period. Therefore, findings related to harm should be interpreted with caution as the measurement of harm associated to gaming could lead to over pathologisation (Kardefelt-Winther, et al., 2017).

### **4.2.2 Aim 2: Psychological Distress, Coping and Harm in Partners of Gamers.**

The correlational findings of the study support aspects of the SSCS model as the proposed source of stress (IGD) was positively associated with harm, psychological distress and increased efforts to cope. Emotion-focused coping was more highly endorsed by partners of gamers who were more psychologically distressed. Chan et al. (2016) also reported that family members of gamblers, used all coping strategies, but those who were significantly more distressed were more likely to use maladaptive coping strategies. Importantly, the associations between psychological distress and emotion-focused coping remained moderate, consistent with other studies (Carver & Connor-Smith, 2010; Nielsen, Knardahl, 2014). Therefore, there is likely to be a range of factors, other than psychological distress (i.e personality and past experiences) that could contribute to endorsement of emotion-focused coping strategies in partners of gamers who are psychologically distressed.

Problem-focused coping was not associated to any of the harms or psychological distress and there was no statistically significant difference between the groups in terms of the frequency of problem-focused coping strategies they used. The indifference in problem-focused coping strategies could have been explained by the sample generally not being severely psychologically distressed, therefore more able to use problem-focused coping

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strategies. This would support Litman and Lunsford (2009) who found that lower distress was associated with higher use of problem-focused strategies. Acceptance was the most frequently used problem-focused coping strategy by partners of gamers classified as *having* IGD. This is consistent with Orford et al., (2013) and Lee et al., (2011) where family members often used acceptance coping to “put up” with the loved one’s addiction. Acceptance coping can be considered adaptive because it allows individuals to refocus their attention on their own needs and responsibilities, enhancing their own well-being (Orford et al., 2013). As 24.5% of individuals who classified their partner as having IGD “almost always” experienced feelings of helplessness, acceptance coping may have been perceived as easier or more helpful in this situation, than emotion-focused strategies of coping.

Emotion-focused coping was not predictive of harm beyond psychological distress, IGD and time-spent gaming. This did not support previous literature, for example, Litman and Lunsford (2009) indicated that venting, denial, and behavioural disengagement were predictive of worse health and well-being outcomes and Mayordomo-Rodríguez et al., (2015) indicated the same effect. The study was also unable to fully support aspects of the SSCS model (Orford, 1992), which suggests that coping can directly mediate the relationship between stress and harm experienced in family members of those with addictions. In this study, coping strategy endorsement may not have been high enough to influence harm experienced and problem-focused coping efforts could have impacted the effects of emotion-focused coping on harm. Furthermore, there are likely other factors that contributed to increased impacts, that were not coping related (i.e social support, personality, mental-health status of both partners, lifestyle factors, and socio-economic status).

As there is no consistent way of grouping items into emotion and problem-focused coping in the brief COPE (Carver., 1997), it is difficult to compare the two types of coping strategies and their relation to negative consequences. For instance, Nielsen, and Knardahl

(2014), and Carver & Connor-Smith (2010) include positive reframing, religion, and humour as emotion-focused coping strategies. As these strategies were viewed as “adaptive” in this study, they were included as problem-focused. The inconsistency in terms of how each coping strategy is categorised, and the fact that they interact with each other and therefore cannot be isolated (Carver & Connor-Smith, 2010), makes it difficult to distinguish which strategies are most predictive of negative consequences. Generally, findings indicated that coping did not make a difference to harm experienced and rather suggested that the functional impairments associated with IGD referenced in the DSM-5 (APA, 2013) and the time-spent gaming (specifically in isolation) were the biggest contributors to harm.

### **4.3 Practical Applications and Implications**

Findings highlighted that negative consequences, specifically those associated with emotions, relationships and health can be “passed on” to those around a problem gamer. As partners of gamers classified as having IGD, were on average categorised as moderately psychologically distressed, it seems there is a population of clinically depressed individuals who are experiencing negative consequences because of their partner’s problem gaming and are not seeking help. These individuals may be unsure of how to cope with the situation, so a challenge for therapists is to make help available for the minority of individuals experiencing these harms. Findings from this study indicated that harms are most likely experienced because of time-displacement and the functional impairments accompanying IGD in the game. Clinicians may want help gamers and their partners to define their expectations for each other in relation to communication, time-spent together, responsibilities and intimacy. Furthermore, helping partners to better understand each other, i.e how gaming affects the non-gaming partner but also how gaming helps the gaming partner seems important for reducing impact.

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It was identified that gaming often took place for 40 hours a week and that gaming for more than 20 hours a week increased relationship harm reported by partners, highlighting the importance for increased psychoeducation on what “healthy” gaming entails. Furthermore, increasing the gamers awareness of the negative consequences of their behaviour and establishing a plan for time-management may be helpful for reducing time-displacement. In instances where an individual is aware of the negative consequences of their behaviour, but cannot control it, employment of accountability techniques could be useful. Impacts to health, including a lack of physical activity, was reported by 57% of individuals in the IGD group. Meyler, Stimpson, & Peek (2007) suggest a high rate of physical and mental health concordance between couples. In view of this evidence, participation in mutual activities outside of games, that provide an equal level of interest and excitement for the gamer, may contribute to better relationship functioning and improved health for both partners. Contrastingly, as gamers can enjoy playing games with their family and friends (Scott et al., 2006; Ahlstrom et al., 2012), understanding of how recreational gaming can facilitate relationship satisfaction and happiness and implementing these aspects of gaming into the relationship may be helpful.

Findings related to coping strategies provide some useful information for clinical application. Problem-focused strategies (e.g acceptance) and emotion-focused coping strategies (e.g self-distraction) were used simultaneously by individuals to deal with the same source of stress (IGD). Clinicians may want to help partners focus on the positive benefits of acceptance (e.g identifying solvable problems), and self-distraction (e.g taking on constructive activities), over negative aspects of the same coping strategies (e.g admitting what cannot be changed and trying to escape negative emotions) (Litman & Lunsford, 2009). As IGD was the most significant predictor of harm in the multivariate regression analyses, it seems apparent that therapists must first seek to reduce the nine functional impairments

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associated with IGD in the gamer (APA, 2013). Alongside this, therapists may want to address any pre-existing issues, unrelated to gaming that may also be precipitating problem gaming. Clarifying expectations, boundary setting, increased shared leisure activities, encouraging awareness of potential negative consequences, and open and honest communication between gamers and those close to them, may serve as a benefit for reducing the functional impairments associated with IGD and psychological distress in partners of problem gamers.

### **4.4 Limitations and Further Considerations**

One limitation was that this study did not include perspectives from gamers and partners simultaneously. A dyadic design, would have allowed for comparison of perspectives, and may have provided more encompassing findings for IGD severity, harms, and dyadic coping. There is also no way of knowing the quality of the couple's relationship prior to the time in which gaming became noticeably excessive, i.e gamers could game to escape already existing relationship difficulties. This research would have benefited from a longitudinal design, although time constraint and limited resources did not make this feasible. This study could have benefited from using the short form Coping Questionnaire (CQ, Orford et al., 1975), which consists of no ambiguity in relation to grouping of coping items and is a common measure associated with SSCS model in other research associated to family member impacts. If this measure was used, coping strategies used by partners, in the current study, could have been more effectively compared to other studies in the area, that use the CQ as a primary measure (e.g Chan et al., 2016; Krishnan, & Orford, 2002).

Furthermore, a particularly high number of participants identified their partners as having IGD (18.1%). The prevalence of IGD is estimated at 0.7%-15.6%, across a range of countries (Feng, Ramo, Chan, & Bourgeois, 2017). An imbalance in the perception of harm

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between, in which the non-gambling partner may over-estimate the severity of the problem is reported in gambling research (Browne et al., 2016). This study was advertised to individuals who wanted to share their experience about their gaming partner, therefore a higher number of participants could have been experiencing more severe problems. The findings may also generate useful gender-specific data but may lack generalisability, as 90% of the participants were females. This gender bias is seemingly unavoidable in video-gaming research and is prevalent in all other studies regarding the perspectives of partners of gamers (Northrup & Shumway, 2014; Lianekhammy & van de Venne, 2015) and is present in other research related to affected family members of other addictions (Chan et al., 2016; Dowling, et al., 2014; Orford et al., 2013). As there were 49 individuals who classified their partners as having IGD and 25 males in this sample, these sample sizes were not large enough to enable separate multivariate regression analysis for specific groups (i.e IGD in partner vs non-IGD in partner or male vs female). A larger, more balanced sample would have enabled for comparative multiple regression analyses in these instances.

### **4.5 Strengths of the Current Study**

This is one of the first studies to investigate harm alongside coping strategies, in partners of gamers, could fill some of the gap in the literature in relation to this overlooked group of individuals, and should be indicative of steps-forward in the research in this area. This study built on past qualitative research from the perspectives of partners of gamers, by analysing the strength of the effects associated with a broader range of harms. Although the data were primarily skewed, the study provided an adequate sample, which was well above the required sample size required for adequate power, as identified by the priori power analysis. All measures used in this study (harm, K-10, brief COPE) enhanced reliability.



### **4.6 Future Research**

As this is one of the first studies that investigated the experiences of partners of gamers, replication studies are needed to confirm results and investigate the vast number of variables that were not inspected. These findings provide guidance for future longitudinal research or experiments that seek to identify causal connections between IGD and inter/intrapersonal consequences. Identification of long-term trends in time-spent gaming, relationship quality, and severity of harms for the gamer and those around them will contribute to a clearer conceptualisation of “passed on” impacts specific to IGD. Studies that use the brief COPE may want to consider each specific coping strategy independently (rather than in groups) for prediction of harm and well-being in partners of gamers. This may provide insight into the use of problem-focused coping strategies as a predictor for well-being, which could have been done in this study, if a measure such as the World Health Organisation-Quality of Life-BREF (Murphy, Herrman, Hawthorne, Pinzone, & Evert, 2000) was included. As IGD remained the most predictive of passed on harm to partners, future research could also investigate each IGD criterion separately to distinguish which are most salient for transmission of negative consequences. Investigation of factors other than coping, which could mediate the relationship between stress in partners associated and harm to health and well-being, i.e support and personal characteristics, is needed. Lastly, further research that involves gamers and their partners in a clinical setting, may provide a more accurate indication of the strength of the effects related to gaming and better establish the casual- pathways between gaming and “passed on” harms in this complex situation.

### **4.7 Conclusions**

The current study provided valuable insight into an area of gaming research, which has not been extensively explored. This study has suggested that (1) excessive gaming has the potential to harm partners in many domains; (2) relationship harms, specifically, a reduction in time-spent together, intimacy, communication and having responsibilities passed on are associated with the gaming of a partner; (3) partners of gamers use many types of coping strategies to deal with stress; (4) emotion-focused coping is more likely in individuals who are psychologically distressed; (5) problem-focused coping strategies are not associated with psychological distress or harm in partners of gamers; (6) IGD and time-spent gaming are more predictive of overall harm experienced by partners than coping. Further research into the mechanisms by which IGD may affect those around the gamer and the development of a framework of harm that is specific to IGD and acknowledges others is needed before IGD can be considered a legitimate addiction that causes “passed on” negative consequences consistent with other disorders.

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## APPENDIX 1 – Survey

### Information Sheet

Hello!

Our names are [REDACTED] and we are Honours Psychology students at the University of Adelaide.

You are invited to participate in a unique study about how gaming can affect PARTNERS of gamers in terms of the overall quality of the relationship. This study is about gathering new perspectives on gaming outside of the players themselves and understanding partners' experiences of gaming, including the benefits and harms.

**Participation:** Completely voluntary. Your data will be anonymous. You are invited to participate because you are 18 years or older, speak English, and are the partner of someone that games.

**Survey:** The survey includes a range of question areas, including basic demographic information (age, gender etc...) about you and your partner. There are questions about your partner's gaming activity and preferences. There are some questions about how your partner's gaming has affected you in general, and how you cope, and the support you have sought and/or think may be helpful for partners. We would also really appreciate your feedback or other thoughts related to gaming that you feel is important to mention.

The study should only take about 15 minutes of your time.

**Any risks?** This study has no anticipated risks. But, if this study raises any issues for you, we encourage you to contact us with any concerns (see below) or if you feel upset, to seek help from Lifeline, a crisis support line (ph. no: 13 11 44) or Beyond Blue (ph. no: 1800 010 630).

**For more information:** This study has been approved by the Human Research Ethics subcommittee in the School of Psychology at the University of Adelaide (HREC approval number: 17/53). If you have any queries regarding the study, please contact us at [REDACTED] or our supervisor at the School of Psychology, University of Adelaide: [REDACTED]

If you would like to speak with an independent person regarding a concern, complaint, or your rights as a participant, please contact the convener of the Subcommittee, Paul Delfabbro, on:  
Email: paul.delfabbro@adelaide.edu.au  
Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

**\* 1. Informed Consent**

**By giving your consent below, you affirm that:**

- You have read and fully understand the information on the study.
- You agree to take part in the study as described in the study information sheet.
- You are 18 years of age or older.
- Procedures and potential risks of the study have been explained to your satisfaction.

I CONSENT



All about you - Basic information

\* 2. What is your age?

\* 3. What is your gender?

Female

Male

Other

\* 4. What is your relationship status?

Partnered

Married

De facto

Single

\* 5. What is your highest level of education?

Secondary / High School

Further (i.e. apprenticeship, TAFE)

Higher (i.e. undergraduate, university)

Postgraduate (i.e. Masters, Ph.D)

Other (please specify)

6. What is your employment status?

\* 7. Your income bracket per annum?

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\* 8. What is your nationality?

- Australian or New Zealander
- American
- European
- Asian
- Other

\* 9. Do you live in Australia?

- Yes
- No (please specify)

About Your Partner

\* 10. What is your partner's age?

11. What is your partner's gender?

- Female
- Male
- Other

\* 12. How long have you and your partner been together?

- Less than 6 months
- About 6 - 12 months
- Between 1 - 3 years
- Between 3 - 6 years
- Over 6 years

\* 13. Do you live with your partner?

- Yes
- No

14. If yes to question 13, how long have you been living together?

- Less than 6 months
- About 6 - 12 months
- Between 1 - 3 years
- Between 3 - 6 years
- Over 6 years

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15. If yes to question 11, do you and your partner live with anyone else?

- No
- Room-mate
- Parents
- Children
- Other (please specify)

\* 16. What is your partner's highest level of education?

- Secondary / High School
- Further (i.e. apprenticeship, TAFE)
- Higher (i.e. undergraduate, university)
- Postgraduate (i.e. Masters, Ph.D)
- Other (please specify)

\* 17. What is your partner's employment status?

18. What is your partner's income bracket per annum?

19. What is your partner's nationality?

- Australian or New Zealander
- American
- European
- Asian
- Other

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### Your Partners' Gaming

**These questions are about your partner's gaming activities. It is understood you may not know or be able to recall all details but please just answer to the best of your ability.**

- \* 20. What percentage of your partner's gaming time is spent playing with you also playing?

21. If YOU play games, how many HOURS a week on average do you play?

22. Please record the hours spent in a TYPICAL WEEK that best describes YOUR PARTNER's gaming activity.

Leave it BLANK if they do not usually play on a particular day or on a particular device.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Console / PC	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Mobile Phone	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- \* 23. Which genres of video games does YOUR PARTNER most commonly play? (Select all that apply)

- I don't know
- First Person Shooter
- Role Playing Games
- Action Adventure
- MMO - Massively Multiplayer Online Games
- MOBA - Multiplayer Online Battle Arena
- Sports
- Racing
- Puzzle
- Strategy
- Simulation
- Other (please specify)

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\* 24. Where does YOUR PARTNER tend to play games most of the time?

- Shared family room (i.e. living room)
- Private room (i.e. bedroom, gaming room)
- External location (i.e. friends house, internet cafe)
- Other (please specify)

\* 25. Who does YOUR PARTNER play games with? (Select all that apply)

Note: Do not add % signs. Answers must add up to 100.

Playing with real life friends

Playing with 'online only' friends or strangers online

Playing alone

26. OPTIONAL: What do you usually do when you are home and your partner is gaming?

\* 27. How often does your partner game at night?

- Never
- 1-2 nights
- 3-4 nights
- 5-6 nights
- 7 nights
- I don't know

28. OPTIONAL: Has your partner's gaming NEGATIVELY affected your intimacy or sex life?

- No effect
- Minor
- Moderate
- Major

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\* 29. How much do you feel like their gaming **NEGATIVELY** impacts on your time spent together?

- No impact**
- Minor** (minor effect on one area only)
- Moderate** (some noticeable problems in more than one area)
- Major** (major impairment in several areas)

\* 30. Do you and your partner talk openly and respectfully about gaming?

- Never
- Sometimes
- Most of the time
- Almost always

\* 31. How long do you think your partner has been gaming for? (In years)

32. List any **POSITIVE** aspects of your partner's gaming. (Select all that apply, or leave blank)

- It helps their confidence
- It helps their social life
- They make money from gaming (job-related)
- It keeps them safe
- It improves their mood
- It gives us bonding time together
- Helps their problems solving abilities
- Other (please specify)

Partner's Gaming-related Conflict

These questions refer to the last 12 months\*.

*\*If you have known your partner for less than 12 months, please just reflect on the time you have been with them.*

\* 33. Internet Gaming Checklist

	No	Sometimes	Yes	Don't know
Does your partner spend a lot of time thinking or talking about games even when they are not playing, or planning when they can play next?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you notice your partner feeling restless, irritable, moody, angry, anxious or sad when attempting to cut down or stop gaming, or when they are unable to play?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you notice your partner feeling the need to play for increasing amounts of time, playing more exciting games, or using more powerful equipment to get the same amount of excitement they used to get?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you notice that your partner is unable to cut back on the amount of time spent playing games?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has your partner lost interest in or reduced participation in other recreational activities (e.g. hobbies, meeting with friends) due to gaming?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does your partner continue to play games even though they are aware of negative consequences (such as not getting enough sleep, being late for work, spending too much money, having arguments with others, or neglecting important duties?)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has your partner lied to you, family, friends, or others about how much they game?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does your partner play games to escape from or forget personal problems, or to relieve uncomfortable feelings (such as guilt, anxiety, helplessness or depression?)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has your partner risked or lost significant relationships or job, educational, or career opportunities because of their gaming?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## Financial Impacts

The next few questions will refer to **YOUR PARTNER's** gaming over the last 12 months\*.

\*If you have been with your partner for less than 12 months, please just reflect on the time you have been with them.

We want you to think about the impact your partner's gaming has had on **YOU**,not how it may have impacted them.

\* 34. Please indicate whether you experienced any of these issues as a result of your partner's gaming during this time.

	No	Yes
Less spending on recreational expenses (e.g. eating out, going to the movies, other entertainment)	<input type="radio"/>	<input type="radio"/>
Less spending on beneficial expenses (e.g. insurances, education, car and home maintenance)	<input type="radio"/>	<input type="radio"/>
Less spending on essential expenses (e.g. medication, healthcare and food)	<input type="radio"/>	<input type="radio"/>

\* 35. How much money have YOU spent on YOUR PARTNER's gaming in the last 12 months (or less if you've been together for less time)? (inc. gaming equipment, consoles, hardware, software, credit etc)

\* 36. Overall, what level of **NEGATIVE** impact did your partner's gaming have upon your financial security during this time?

- No impact
- Minor (minor impairment in one area only)
- Moderate (some noticeable problems in more than one area)
- Major (major impairment in several areas)

Impact on your Relationships

The next few questions will refer to your partner's gaming over the last 12 months\*.

\*If you have not been with your partner for 12 or more months, please just reflect on the time you have been with them.

We would like you to think about how YOUR PARTNER'S gaming may have impacted upon your relationships during this time.

\* 37. To what extent has YOUR PARTNER'S gaming caused the following relationship issues?

	Never	Sometimes	Most of the time	Almost always	Don't know
Spent less time with people I care about	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Got less enjoyment from time spent with people I care about	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neglected my relationship responsibilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spent less time attending social events (non gaming related)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experienced greater tension in my relationships (e.g. suspicion, lying, resentment)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experienced greater conflict with my partner (e.g. arguing, fighting, ultimatums)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Felt belittled in my relationship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spent more time doing household chores than my partner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased threats of separation or ending the relationship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased time spent wishing the relationship had never begun	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling let down that the relationship hasn't met expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had family responsibilities passed on to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Emotional Impacts

The next few questions will refer to YOUR PARTNER's gaming over the last 12 months\*.

\*If you have not with your partner for less than 12 months, please just reflect on the time you have been with them.

We would like you to think about how their gaming may have impacted upon your emotional wellbeing during this time.

\* 38. To what extent has YOUR PARTNER'S gaming caused the following well-being issues?

	Never	Sometimes	Most of the time	Almost always	Don't know
Feeling distressed about their gaming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Felt ashamed about their gaming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Felt like a failure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Felt insecure or vulnerable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Felt angry about not being able to control their gaming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Felt worthless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feelings of hopelessness about their gaming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thoughts of running away or escape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\* 39. Overall, what level of NEGATIVE impact did your partner's gaming have upon your emotional well-being during this time?

- No impact
- Minor impact (minor impairment in one area of your life)
- Moderate impact (some noticeable problems in more than one area of your life)
- Major impact (major impairment in several areas of your life)

40. Do you feel as if gaming has had any POSITIVE effect on your PARTNER'S mental health?

- No
- Yes (please specify how)

## HARM AND COPING IN PARTNERS OF PROBLEM GAMERS

41. Do you feel as if your partner's gaming has had any POSITIVE effect on YOUR mental health?

- No
- Yes (please specify how)

\* 42. Please indicate how much the statement applies to YOU over the last week.

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
About how often did you feel tired out for no good reason?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About how often did you feel nervous?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About how often did you feel so nervous that nothing could calm you down?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About how often did you feel hopeless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About how often did you feel restless or fidgety?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About how often did you feel so restless you could not sit still?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About how often did you feel depressed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About how often did you feel that everything was an effort?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About how often did you feel so sad that nothing could cheer you up?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About how often did you feel worthless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Health and Work Impacts

The next few questions will refer to YOUR PARTNER's gaming over the last 12 months\*.

\*If you have been with your partner for less than 12 months, please just reflect on the time you have been with them.

We would like you to think about how their gaming may have impacted upon your health and wellbeing during this time.

\* 43. Please review the following list and indicate whether YOU have experienced any of these issues as a result of your partner's gaming during this time.

	Never	Sometimes	Most of the time	Almost always	Don't know
Reduced physical activity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stress-related health issues (e.g. headaches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loss of sleep due to partner gaming or worrying about their gaming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neglected hygiene and self care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neglected my medical needs (including taking prescribed medication)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overeating or not eating enough	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased my use of tobacco or alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\* 44. Overall, what level of NEGATIVE impact did your partner's gaming have upon your physical or mental health during this time?

- No impact
- Minor (minor impairment in one area of your life)
- Moderate (some noticeable problems in more than one area of your life)
- Major (major impairment in several areas of your life)

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\* 45. Please indicate whether you have experienced any of these issues as a result of your partner's gaming during this time.

	Never	Sometimes	Most of the time	Almost always	Don't know
Reduced performance at work or study (i.e., due to tiredness or distraction)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Was late for work or study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Absent from work or study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hindered my job seeking efforts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Used my work or study time or resources to attend to issues caused by your partner's gaming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conflict with my boss or people I work with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\* 46. Overall, what level of negative impact did your partner's gaming have upon your work or study experience during this time.

- No impact**
- Minor** (minor impairment in one area of your life)
- Moderate** (some noticeable problems in more than one area of your life)
- Major** (major impairment in several areas of your life)

Your Coping Styles

\* 47. How do you GENERALLY cope when faced with a stressful or problematic scenario?

	I don't do this at all	I do this a little bit	I do this a medium amount	I do this a lot
I've been turning to work or other activities to take my mind off things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been concentrating my efforts on doing something about the situation I'm in.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been saying to myself "this isn't real."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been using alcohol or other drugs to make myself feel better.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been getting emotional support from others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been giving up trying to deal with it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been taking action to try to make the situation better.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been refusing to believe that it has happened.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been saying things to let my unpleasant feelings escape.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been getting help and advice from other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been trying to see it in a different light, to make it seem more positive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been criticizing myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been trying to come up with a strategy about what to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been getting comfort and understanding from someone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been giving up the attempt to cope.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been looking for something good in what is happening.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been making jokes about it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been accepting the reality of the fact that it has happened.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been expressing my negative feelings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been trying to find comfort in my religion or spiritual beliefs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been trying to get advice or help from other people about what to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been learning to live with it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been thinking hard about what steps to take.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been blaming myself for things that happened.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been praying or meditating.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've been making fun of the situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Support Seeking

\* 48. Have YOU ever asked your friends or family for advice/support about YOUR PARTNER's gaming?

- I don't need to - it's never been problematic
- No
- Yes

49. Has YOUR PARTNER ever sought support for problem gaming? (Select all that apply)

- Not applicable
- Never sought support
- Prefer not to say
- Family and Friends
- Psychologist or counsellor
- Online forums or chat
- Self-help books
- Phone chat services e.g Lifeline
- Other (please specify)

50. If support was sought, did your partner find it helpful in reducing impacts associated with their gaming?

- Yes
- No



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51. Have you sought professional support FOR YOURSELF to deal with your partner's gaming behaviour?

- Not applicable
- Never sought support
- Prefer not to say
- Family and Friends
- Psychologist or counsellor
- Online forums or chat
- Self-help books
- Phone chat services e.g Lifeline
- Other (please specify)

52. If you HAVE NOT sought help for any impacts associated with your partner's gaming, would you consider it in the future?

- Not applicable
- Yes, if their gaming increased
- Yes, I am not aware of what support is available to me
- No, I do not see myself needing support for this issue

Feedback and Further Information

53. What kinds of support do you think can help people who play games too much?

54. If you've ever received support for someone with gaming problems, what support did you find helpful?

55. What type of support, strategies or advice have you found less useful or unhelpful?

56. Do you have any other comments or opinions about support for problem gaming? Any other feedback?

57. Please copy and paste this link into your search bar. It will direct you to a new page where you can enter your email address to go into the draw to win a \$50 Myers/Coles voucher.

<https://www.surveymonkey.com/r/8PHY2PB>

## **APPENDIX 2-Survey Invitation**

### **Hi everyone!**

I am doing a study on the impacts experienced by PARTNERS of VIDEO-GAMERS, for our Psychology Honours project at the University of Adelaide.

We would love for you to take part in the survey, if you are a partner or a parent of someone that plays video-games. This survey will take approximately 15 minutes, and you will also go into the draw to win a \$50 Coles/Myer gift card upon completion of the study!

If you would like to take part in the study please follow the link below:

<https://www.surveymonkey.com/r/LKTLQ27>

### **INFORMATION:**

This is an opportunity for you to express your opinions, feelings and experiences around your child's video gaming behaviours.

You are invited to participate in a unique study about video gaming, which aims to investigate the potential impacts that your partner's gaming has on YOUR life. This study will also allow us to understand the coping strategies you use to deal with any of life's stressors. You will have the opportunity to view this study once it has been analysed and perhaps understand if any coping strategies can be used to buffer impacts associated with your partner's gaming behaviour and generally improve your family environment.

### **Who can participate?**

Participants must have a partner that games regularly (at least once a week), are 18 years or older, an Australian resident and speak English.

### **What will I be asked to do?**

The survey will ask general demographic information

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about you and your child and their gaming behaviour and history. It will then investigate any impacts that their gaming has had on YOUR life (including emotional, financial, relationships, work etc). The last section of this survey will allow you to identify how you cope with potential stressors in your life.

### **How much time will the project take?**

The survey will take approximately 20 to 30 minutes to complete.

Enter a draw to win a voucher.

By completing this survey, you will go into the run to win \$50 Coles/ Myer voucher. You will also be contributing to vital research on parental perspectives on video- gaming.

### **What will happen to my information?**

Your data will be anonymous. Only the researchers will have access to the data and no identifying information will be present in the findings or in any subsequent publications.

### **Who do I contact if I have questions about the project?**

If you have any queries or comments regarding the study, please contact me at xxxxxxxx@student.adelaide.edu.au or my supervisor at the School of Psychology, University of Adelaide: Xxxx Xxxx, xxxxxxxx@adelaide.edu.au.

Yours sincerely,

Xxxx Xxxx