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A Grounded Theory of the Influence of Significant Life Events, Psychological co-Morbidities and Related Social Factors on Gambling Involvement

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Abstract This study aimed to explore how gambling involvement and gambling-related problems may be affected by significant life events, psychological co-morbidities and related social factors. Twenty recreational gamblers and 20 people experiencing gambling problems were interviewed, with reflective first-person accounts being analysed to develop a grounded theory. While both groups had experienced various significant life events and psychological co-morbidity, they coped with such events in different ways. The problem gambling group was found to increase their gambling involvement, unlike the recreational gambling group. In contrast to the problem gambling group, most recreational gamblers had strong social support networks and a resilience that helped them cope with significant life events and co-morbidities. A major finding of this study is the importance of resilience and social support when coping with adversity as protective factors against gambling problems. A grounded theory framework is presented as a basis for further research in this area.

Keywords Significant life events · Psychological co-morbidities · Social supports · Resilience · Problem gambling

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Problem gambling is acknowledged as a significant public health issue, with past year prevalence ranging from 0.5 to 7.6 % of the adult population, depending on the year and jurisdiction (Williams et al. 2012). Problem gambling is characterised by a pattern of excessive gambling, impaired control over gambling, significant adverse consequences deriving from this impaired control, and persistence in excessive gambling despite the negative consequences (Williams et al. 2012a, b). These negative consequences can include problems relating to finances, mental and physical health, work, study, and relationships (Williams et al. 2012a, b).

Despite the considerable impacts of problem gambling, debate continues as to its causes and contributors. Various biopsychosocial models have theorised a range of factors that are thought to interact in complex ways to both contribute to and protect individuals from developing gambling problems (Ajdahi and Wolgast 2008; Blaszczynski and Nower 2002; Sharpe and Tarrier 1993; Williams et al. 2012a, b). However, while these models have been based on empirical research findings and clinical cases, relatively little research has sought to understand the complex and multifaceted interplay of these factors by analysing gamblers' detailed experiences and accounts.

This interpretive, qualitative study helps to address this research gap in relation to three factors identified in some psychosocial models of gambling – psychological co-morbidity, significant life events, and social influences (Ajdahi and Wolgast 2008; Blaszczynski and Nower 2002; Thomas et al. 2009). Research into risk factors has found a strong association between problem gambling and psychological co-morbidities but causal directions remain unclear (Thomas and Jackson 2008). Links between problem gambling and significant adverse life events have similarly been noted, where stress caused by a traumatic incident can catalyse increased gambling involvement (Boughton and Falenchuk 2007; Pierce et al. 1997). Various social factors are also known to contribute to gambling problems, with strong associations found between development of gambling problems in later life and early exposure to gambling (Dowling et al. 2010; Saugeres et al. 2012). Social support is a further influence on gambling involvement, with social isolation and disconnectedness reported as triggering gambling problems (McMillen et al. 2004; Thomas et al. 2009), while strong social support is considered a protective factor (Department of Justice 2011; Williams et al. 2012a, b).

To contribute to a better understanding of how these three factors interact to influence gambling, this study aims to develop a grounded theory of the influence and interplay of significant life events, psychological co-morbidities and related social influences on gambling involvement.

Related Literature

Gambling involvement exists on a behavioural continuum ranging from no gambling to a great deal of gambling (Shaffer and Korn 2002), with commonly used categories of problem gambling severity comprising non-problem, low risk, moderate risk and problem gambling (Ferris and Wynne 2001). Several psychosocial factors have been proposed as influencing the transition from non-problem to problem gambling (Williams et al. 2012a, b). Previous research relating to the influence of significant life events, psychological co-morbidity and various social influences on gambling involvement is now briefly reviewed.

Significant Life Events and Gambling Involvement

Seminal research by Holmes and Rahe (1967) defined a significant life event as any set of circumstances that signifies or necessitates change in a person's life, and that triggers stress.

Exposure to these associated stressors affects a person's susceptibility to experiencing negative consequences (Billings and Moos 1981). The studies discussed below demonstrate that gambling is one way that people try to cope with life stresses.

Qualitative research has found that the initial trigger for excessive gambling is often a major traumatic event such as divorce, loss of employment or children leaving home (Saugeres et al. 2012). For example, in Surgey's (2000) focus group study with 28 female problem gamblers, some participants reported that the need to manage the impacts associated with a time of change in their life precipitated their participation in gambling. These changed circumstances included significant events such as unemployment, separation or divorce, when children left home, sudden increased income, immigration or resettlement, and developing a serious health problem. A small qualitative study with both male and female problem gamblers developed a grounded theory of problem gambling relating to electronic gaming machines which depicted gambling as a means of managing problems, including loss of an important relationship through separation or death of a loved one, and times of transition and crisis including unemployment and retirement (Thomas et al. 2009). The Women's Information Referral Exchange (WIRE) (2008) argues that women may feel more vulnerable and therefore more prone to developing a problem during difficult changes or crises and that, after losing a job, after the death of a partner, or when children are at school all day or have left home, the resulting loneliness and isolation can make gambling venues very appealing. Indeed, loneliness and isolation following significant life events and the resulting use of gambling to fill this void, were common themes in all qualitative studies cited above.

Two quantitative studies have also investigated links between significant life events and gambling. A longitudinal study of gambling in Victoria with a base sample of 15,000 adults found that problem and at-risk gamblers were more likely than non-problem gamblers to report experiencing a significant adverse life event in the past 12 months (Department of Justice 2009, 2012). These events included: death of a loved one; change in living conditions; change to a person's financial situation; injury or illness; increased conflict; change in work conditions, conflict at work and retirement; legal problems; and divorce or separation. However, the authors cautioned that these findings refer to associations not causal relationships. More concrete evidence that significant life events contribute to gambling problems was provided by the Queensland Household Gambling Survey. From a sample of 30,000 adults, it found that a key motivator to increase gambling was the experience of a negative life event and that a negative life event often triggered a change from non-problem to problem gambling (Department of Justice and Attorney-General 2012).

Psychological co-Morbidity and Gambling Involvement

Psychological co-morbidity occurs when an individual experiences two or more mental disorders simultaneously (Gordon 2008). Having a co-morbid disorder can escalate the severity of a gambling problem influencing the type of treatment and outcomes (Ibanez et al. 2001). Research indicates that people with gambling problems have high rates of co-morbid disorders. Population studies have found rates of psychological co-morbidity amongst pathological/problem gamblers to range between 37 and 71 % for depression, 41–60 % for anxiety disorders, 48–72 % for alcohol dependence, and around 38 % for drug dependence (Kessler et al. 2008; Petry et al. 2005; Thomas and Jackson 2008; Department of Justice 2009, 2011). Co-morbidity rates amongst treatment samples are even higher (Battersby et al. 2006; Ibanez et al. 2001). However, causal directions between problem gambling and psychological co-morbidities can only be identified through prospective studies, but longitudinal evidence remains

contradictory and inconclusive (Department of Justice 2012; Haw et al. 2013; Kessler et al. 2008).

Trauma models of mental disorders emphasise psychological trauma arising from a severely distressing event as the key causal factor in the development of many mental disorders (Ross 2000). Trauma has been situated in models of problem gambling (Grant Kalischuk and Cardwell 2004), and excessive gambling is considered as a means for dealing with trauma through "escape" (Lesieur and Blume 1991; Strachan and Custer 1989). Studies of problem gamblers in treatment have revealed high rates of both trauma from a distressing life event and psychological comorbidity (Petry and Steinberg 2005; Specker et al. 1996). For example, Taber et al. (1987) reported that 39 % of participants admitted to an inpatient gambling treatment program had experienced moderate to severe trauma linked to a distressing life event, with those experiencing trauma also reporting higher rates of substance abuse, depression and anxiety than those not experiencing trauma. Clearly, the relationship between problem gambling, co-morbidities and significant life events is complex, with causal directions likely to depend on the nature and severity of the co-morbid condition(s), event(s) and gambling problem, and other individual differences such as social influences and coping ability.

Social Factors and Gambling Involvement

Research has shown associations between various social factors and gambling problems. For instance, support networks are important to a person's sense of well-being, both physical and psychological, and help people to cope in times of adversity (Burke and Hulse 2002; Putnam 1998). Evidence suggests that problem gamblers tend to have lower social support than non-problem gamblers, including being able to access help from family members, friends and neighbours if needed (Department of Justice 2011; Thomas et al. 2009). In addition, social isolation has been linked with gambling problems; using the UCLA Loneliness Scale, McQuade and Gill (2012) demonstrated a significant positive relationship between loneliness and problem gambling. Gambling to relieve loneliness and social isolation is an avoidance-focused coping mechanism and appears particularly common amongst women (Brown and Coventry 1997; Trevorrow and Moore 1998). However, while social isolation might prompt the start of gambling, social isolation can also result from problem gambling as it erodes interpersonal relationships (WIRE 2008), potentially compounding feelings of loneliness.

An additional social risk factor for gambling problems is early exposure to gambling, often in childhood through gambling within the family (Dowling et al. 2010; Lesieur et al. 1999; Winters et al. 2002), and growing up with parental gambling problems (Dowling et al. 2010; Felsher et al. 2010; Lesieur et al. 1999; Winters et al. 2002). The family is the key primary socialisation factor for most people (Van Krieken et al. 2000), although, wider social and institutional environments may also be influential (Felsher et al. 2010).

Coping and Gambling Involvement

Along with social support, a person's ability to cope is likely to be a mediating factor between the stress of a significant life event and/or co-morbidity, and the development of gambling problems. An early model of problem gambling (Sharpe and Tarrier 1993) identified coping skills as the major difference between individuals who lose control of their gambling and those who do not, with people with poor coping skills more vulnerable to problem gambling. Similarly, Blaszczynski and Nower's (2002) Pathways Model identifies poor coping/problem solving skills relating to life stresses as one characteristic of a distinct subgroup of gamblers they called emotionally vulnerable problem gamblers.

However, while many people experience significant life events and psychological co-morbidity, how they cope with the associated stress may determine the nature and extent of any negative consequences they experience. Indeed, coping with change involves 'a complex set of processes directed toward adapting to the impact of such events on physical, social and emotional functioning' (Billings and Moos 1981, p. 140). One form of coping that may be used is gambling to reduce negative mood states; such avoidance coping is generally acknowledged as an important explanatory factor for problem gambling (Saugeres et al. 2012; Thomas et al. 2009). In contrast, task-focused coping is associated with more positive outcomes (Folkman and Moskowitz 2004).

In summary, models of problem gambling have implicated a range of biological, psychological and social factors as influencing the development and maintenance of gambling problems. The current study is concerned with the interplay amongst significant life events, psychological co-morbidities, social influences and coping strategies and how they influence gambling involvement. Each of these factors has been identified in these various models, and integrated most completely in Blaszczynski and Nower's (2002) emotionally vulnerable sub-group of problem gamblers, who are characterised by childhood disturbance, depression, anxiety, and poor coping and problem solving skills. While this model has been influential in characterising this sub-group of gamblers, an in-depth qualitative study can contribute a more complete understanding of how recreational and problem gamblers might differ in how they draw on their coping mechanisms and social supports to respond to adverse events and co-morbidity.

Methods

In-Depth Interviews

This research project was approved by the researchers' university Human Research Ethics Committee. A qualitative, interpretive approach was considered the most appropriate method to address the research aim. In-depth interviews were conducted with 20 recreational gamblers who scored 0–1 on the Problem Gambling Severity Index (PGSI) (Ferris and Wynne 2001), and 20 people experiencing gambling problems who scored 8+ on the PGSI.[1] An interview guide was used, with the first section asking for general background and demographics, and the second part administering the PGSI (Ferris and Wynne 2001). The next interview section asked about specific life events, including death of a loved one, relationship problems, financial concerns, health issues, work related problems, psychological co-morbidities and any related social factors. The last section of the interview concerned changes to gambling behaviour over time and their link to adverse events experienced. All interviews were conducted by telephone and each took approximately 45 min. A qualified social worker conducted the interviews with the problem gambling participants. Interviews were recorded and transcribed by a professional transcription service. All participants gave informed consent and were reimbursed for their time with a $20 shopping voucher.

[1] The PGSI is the accepted problem gambling measure in Australia and has good reliability and validity. It consists of 9 questions with response categories of 'never' =0, 'sometimes' =1, 'most of the time' =2, 'almost always' =3. Scores are summed for a total between 0 and 27. Cut-off scores are 0 for non-problem gambler, 1–2 for low risk gambler, 3–7 for moderate risk gambler and 8+ for problem gambler (Ferris and Wynne 2001).

Recruitment of Participants

Participants were recruited through our research centre's database of previous research participants (both recreational and problem gamblers) who have indicated willingness to participate in further research. Eighty potential participants who live in Victoria were selected using a random sampling system selecting every tenth contact in the database. They were contacted by mail or email, with introduction letters, information sheets, consent forms and reply paid envelopes sent. Given that the aim was to interview 20 recreational and 20 problem gamblers, more than 40 participants (43) were interviewed, because the PGSI was only administered at the time of the interview. Three interviewees scored as moderate risk gamblers and therefore did not fit the inclusion criteria. Tables 1 and 2 show participant characteristics in relation to gender, age and PGSI score for each group.

Data Analysis

An adaptive grounded theory approach was used to analyse the data (Charmaz 2005; Layder 1998). This approach emphasises an open-minded approach to the research, and listening to participants' experiences, and then grounding the analysis in participants' responses. It allows major concepts, themes and processes to be clarified through the analysis process, while enabling participants' narratives to be retained and privileged in the results (Guba and Lincoln 2005). Grounded theory analysis utilises an inductive

Table 1 Participants who gamble recreationally by gender, age and PGSI score

Name (Pseudonym)	Gender	Age	PGSI score
Charlie	Male	59	0
Jan	Female	60	1
Lee	Female	57	0
Wanda	Female	75	0
Bruce	Male	49	0
Roy	Male	67	0
Lindsay	Male	65	0
Zena	Female	50	0
Barry	Male	65	1
Dennis	Male	42	0
Don	Male	66	0
John	Male	57	0
Sue	Female	58	0
Shaun	Male	28	0
Mike	Male	43	0
Peter	Male	44	0
Rebecca	Female	67	0
Sunny	Female	58	0
Graham	Male	37	1
Jeff	Male	45	0

Table 2 Participants who gamble problematically by gender, age and PGSI score

Name (Pseudonym)	Gender	Age	PGSI score
Joe	Male	29	9
Caitlyn	Female	48	14
Malcolm	Male	72	9
Diana	Female	58	24
Denise	Female	58	9
Ron	Male	50	13
Kylie	Female	42	20
Chris	Male	38	13
Karla	Female	56	24
Aaron	Male	41	10
Keith	Male	69	12
Kumar	Male	43	8
Angela	Female	32	10
Eric	Male	61	15
Susan	Female	30	25
Mukala	Female	46	13
Mohajit	Male	45	11
Irene	Female	51	17
Leanne	Female	41	18
Leo	Male	33	23

approach, grounding the analysis in participants' stories and narratives. Thus, a grounded theory analysis recognises the value of both subjective experience and objective theoretical analysis, moving beyond thematic and descriptive accounts of participant experiences, and situating them within wider social environments and systems (Charmaz 2005; Layder 1998). Accordingly in this paper, understandings and propositions have been developed directly from participants' own constructions of meaning, and subsequently theorised with reference to relevant literature. This approach therefore facilitates an in-depth exploration of the ways in which recreational and problem gamblers experiencing significant life events, psychological co-morbidities and related social factors are understood. Transcripts from the recorded interviews were analysed and coded with themes identified (Charmaz 2005; Guba and Lincoln 2005; Layder 1998).

Findings

In this section we focus on specific significant life events discussed by participants and how these impacted on their gambling, along with experiences of co-morbidity. Ways of coping with stressful events are also highlighted.

Death of a Loved one

Participants in both groups spoke about the death of someone close (7 problem gamblers and 14 recreational gamblers). Several participants experiencing gambling problems identified the

connection between the death of a loved one and increased gambling activity. For example, Denise was able to identify how her mother's death precipitated increased gambling:

> I had my mum with cancer who I was nursing. That was a significant time. My mother passed away 11 years ago, but I nursed her for 6 years. That's when the gambling was prominent. I was out of control. Gambling was an escape, and I spent lots of money (Denise).

Participants in the recreational gambling group who spoke about the death of someone close identified having strong support networks, including family and friends, which helped them to cope. They also noted that their gambling involvement did not increase. For instance, Dennis spoke about losing his parents at a relatively young age, saying he coped because he is 'a strong person' and was supported by family:

> I lost my parents over 20 years ago. But I'm a strong person and there was lots of family support. … We're a very close family. My wife comes from a very strong family background too and support from there has been fantastic. I didn't start gambling more or anything like that after my parents died … (Dennis).

Financial Issues

Ten participants in each group discussed experiencing financial stress. For some problem gamblers, the financial stress directly resulted from their gambling. This occurrence was expressed by Chris following a work accident; he told how his gambling continued:

> I was working for myself and I was making good money when I developed a bit of a habit of spending about $500 each time I went gambling. Then, I hurt my back and I couldn't work and then I would still find that sometimes I would go and blow my whole payment every time I got there, to the gambling venue (Chris).

Several recreational gamblers discussed how they coped with financial stress and specified that having financial troubles did not trigger increased gambling activity. For example, Zena spoke about financial troubles from the collapse of the family business and the associated strain on the family. She discussed the support that she, her husband and daughter provided for each other, how she concentrated on 'positive thoughts' and distracted herself by studying and 'living in the present':

> Our business collapsed and we lost about $300,000. It was very hard. We are still coping with it. However, my husband and my daughter, we tried to do the best we could to support each other. … What helped was I distracted myself with studying as a way to forget about it. I didn't gamble any more at that time. I just try to maintain positive thoughts and to not dwell on the past, living in the present (Zena).

Work Related Concerns

Work-related problems featured largely in many stories, with 12 problem gamblers and almost half the recreational gamblers identifying work issues as significant. For instance, Susan, a problem gambler, recognised how her gambling increased significantly when she lost her job:

> I wasn't working and it was taking some time to find another job. Out of boredom I started going gambling to keep myself entertained. And then I'd get stressed that I had no money after I gambled, so I'd go chase the loss the next day (Susan).

Several recreational gamblers noted they coped, not by gambling more, but by reaching out to their support networks. For instance, Sue explained that when suddenly becoming redundant she commenced a course to learn new skills, and highlighted the social contact she gained through study:

> I haven't had any troubles with work, except for the fact that my job disappeared … So I've signed myself up into my second study unit to help me with getting a job … The social connections and support I get through study are good too (Sue).

Relationship Issues

Five problem gamblers and three recreational gamblers spoke about relationship problems. Relationship problems clearly led to increased gambling for several problem gamblers. For instance, Caitlyn connected stress at home to her gambling when she said:

> I know that stress at home is part of the reason for me wanting to gamble, that usually when I was gambling, I wasn't in a good mood … rather than doing something positive I did something negative and I just started to gamble more (Caitlyn).

Several recreational gamblers specifically discussed coping with divorce. John, for instance, spoke about divorce and referred to his strong support network, along with his knowledge base for accessing further support:

> Four and a half years ago my ex-wife cleared out … I gambled a bit but not much. I have a really good network of people, particularly around work … and so I guess I knew all the people I could ring (John).

Being Physically Unwell

Most (13) problem gambling participants and nine recreational gamblers related issues with physical health. Several problem gamblers said their gambling increased when physical health had declined. For instance, Kumar, a problem gambler, said his desire to gamble increased, in part due to concern about his daughter's health:

> I found out my daughter was actually born with a problem in her foot, but we had not found out how serious it would be. Mostly, I wasn't coping with that well, so my gambling increased … gambling just took my mind off things (Kumar).

After an operation that left him immobile for several months, John, a recreational gambler, reached out for help from his friends and other support networks, and like other recreational gamblers, he specifically noted that he did not increase his gambling at that time:

> About 6 weeks after having the operation, I did get a bit of cabin fever being at home by myself, but, once again, people called around, and a few people came around and said, 'Get in the car. We'll go for a drive.' That's the tendency I have. When I'm feeling a bit down I reach out for support. I haven't found that my gambling has increased … (John).

Co-Morbidity

Participants in both groups discussed experiencing various mental health problems, both diagnosed and self-reported (19 problem gamblers, 8 recreational gamblers). Nine problem gambling participants described multiple co-morbidities, and many made connections between episodes of mental illness and increased gambling activity. For instance, Aaron noted:

> When I'm feeling depressed, I generally gamble more, because I know I'm going to lose when I gamble, so I can redirect my anger at that rather than focus on what was getting me upset in the first place … Definitely gambling increased at times of stress. If I was feeling slightly anxious, slightly depressed because of health or work then I'd gamble (Aaron).

Don, a recreational gambler, returned from the Vietnam War with post-traumatic stress disorder [PTSD], although it took 12 years for diagnosis. He noted that, while he tried to cope by drinking, he did not increase his gambling. Don explained how friends, who had also served in the war and were likewise experiencing PTSD, had formed a support group:

> I've had a lot of trouble with post-traumatic stress disorder. When I came home from the Vietnam War I got so I had post-traumatic stress but I didn't know it. … The post-traumatic stress involved lots of things, drinking mainly, which was pretty hard on my wife and kids. Some mood swings and that, but not gambling. … People became aware of the post-traumatic stress because when the first few Vietnam Vets found out about it they started telling their mates. We started getting together as an organisation to help and support each other (Don).

Ways of Coping

Participants in both groups discussed how they coped with the impacts of a significant life event and/or co-morbidity. Participants in the problem gambling group tended to recall early exposure to gambling, then encountered peer pressure to gamble, and later tended to increase their gambling in times of adversity, thus adopting avoidance focused ways of coping. They were inclined to keep their gambling problems hidden. In contrast, the recreational gamblers tended to have more positive, task focused ways of coping with stressful events.

As noted above, one issue associated with increased gambling for the problem gamblers was early exposure to gambling within the family. Conversely, none of the recreational gamblers discussed gambling within their families. However, for 12 of the problem gamblers, the beginning of gambling lay within their family in their childhood. Those who began gambling within their family were more vulnerable to increased and problematic gambling when presented with a stressful life event. For example, Caitlyn told how she was initially exposed to gambling by her mother:

> Unfortunately, I was introduced to gambling by my mother. I remember in the early 1990s gambling became legal in Victoria. I remember my mother getting vouchers in the newspaper, and even in the letter box, where it said if you present $20.00 to the venue that they will give you $5.00 free. It was inducement (Caitlyn).

Ron also spoke about how he gambled within his family as a young child, going to the TAB with his mother:

> I've always gambled. I can remember going to the TAB with my mum when I was about 6 years old (Ron).

Of the 12 participants who described their gambling as beginning within their family, nine saw that a significant event in their lives resulted in increased gambling in later life, as related by Leo when discussing his work-related injury:

> I started gambling in my family. … Then I started doing a lot of gambling when I had the work injury. I knew that to go there to the venue with crutches and sit there didn't really get in people's way. By the time I was off the crutches, I was fully addicted to the pokies (Leo).

Thus, gambling within the family exposed these participants to gambling early in life, and they tended to return to gambling as a release at times of stress.

The Importance of Resilience

While participants with gambling problems tended to increase their gambling when experiencing adverse events, those who gambled recreationally did not. The ameliorating factors emerged as personal resilience and social support networks, which both appeared to be major protective factors. Indeed, many recreational gamblers described adopting 'positive' ways of coping. These included: assuming a positive attitude to life; seeking help and support; being knowledgeable about a given situation; and practising good communication skills, which are all aspects of resilience (Ungar 2004, 2008) and task or problem focused coping (Folkman and Moskowitz 2004). Indeed, several recreational gamblers described themselves as 'resilient', 'strong', 'confident' and 'level-headed'. For example, Shaun described these qualities as key contributors to his ability to cope with issues at work:

> Usually I'm a pretty laid back, level-headed person, I think. I don't get into arguments at work. I deal with injured workers in the workplace, so I've got to stay pretty level-headed. You get to see a lot of interesting things in my job, and it just makes you think about things a little more. Put things into perspective, I guess, too (Shaun).

Sue, also a recreational gambler, spoke about several significant life events she had faced including coping with a chronic illness, being homeless and unemployed. She described her 'in-built resilience' and emotionally strength when discussing her experience with dealing with these significant life events simultaneously.

Like being resilient, many recreational gamblers also referred to 'having a positive attitude to life' which they believed helped them to cope with the stress associated with an adverse event. This belief is evident in the following quote from Lindsay:

> I have a positive attitude to life in general. I know that at the end of the day, if the money all ran out I know we won't die from it (Lindsay).

Some recreational gamblers noted that seeking knowledge about their illness, or resources available to assist, empowered them to deal with adversity. For instance, Charlie noted that he coped with his major illnesses and injuries by being informed:

> I've had two major injuries and I just had a disc replaced in my neck. I had cancer of the neck as well as throat. I had three cancerous tumours removed from my left vocal cord but I knew exactly what would be done. I researched it. I knew that I was in the hands of people who are competent … (Charlie).

Good communication skills were identified by several recreational gamblers as important when dealing with workplace conflict. For instance, Shaun noted:

> I guess the most important thing is to keep an open line of communication. Once you have a breakdown in communication it's really hard to get it back on track when it comes to conflict (Shaun).

Having good social support networks was clearly seen as crucial in dealing with the negative effects of significant life events on participants' lives. The importance of having strong support at times of adversity was spoken about time and again by the recreational gamblers, but not by the problem gamblers. For instance, when Dennis lost his parents and Zena experienced financial hardship, both recognised family support as crucial to their coping. Participants in the recreational gambling group therefore revealed they were able to cope when faced with a significant life event and/or psychological co-morbidity without increasing their gambling. They drew on a range of positive influences in times of stress that included social support networks and their internal resilience. In contrast, participants in the problem gambling group did not discuss factors that relate to resilience, and they tended to have weak social support networks. Unlike the recreational gamblers, when faced with adversity and life stressors, the problem gamblers tended to increase their level of gambling.

Discussion

Participants in both the recreational and problem gambling groups had experienced various significant life events and many had experienced psychological co-morbidity. However, the two groups coped with the associated stresses in distinctly different ways.

The recreational gamblers did not appear emotionally vulnerable and drew on their resilience, which involved being knowledgeable, confident, strong and level-headed, and maintaining a positive attitude to life. Overwhelmingly evident was that all recreational gamblers had strong social support networks, which had been crucial to their coping. None of the recreational gamblers increased their gambling when faced with life stressors. Having strong social networks that provide care, support and encouragement both within and outside the immediate family, personal characteristics such as positive outlook to life's challenges, and capacity to deal with strong feelings and impulses, influence a person's ability to cope with stress involved with dealing with trauma and loss, and are all characteristics of resilience (Ungar 2004, 2008). Participants in the recreational gambling group tended to utilise task-focused ways of coping, such as accessing support, identifying and utilising helpful resources, and adopting good communication skills. Because resilience is a protective factor that helps people cope in the face of adversity, improving resilience is an important target for treatment and prevention across a range of issues (Davydov et al. 2010), including problem gambling.

In contrast to the recreational gamblers, participants experiencing gambling problems did not identify factors that relate to resilience, tended to have weaker support networks, and were inclined to increase their gambling when faced with adversity. Blaszczynski and Nower (2002) have argued that certain personal characteristics, such as a person's emotional ability or inability to cope with stress, influence gambling involvement. Emotionally vulnerable people struggle with stresses, such as those linked to a significant life event; this sub-group gamble to avoid a situation and obtain emotional escape 'through the effect of dissociation on mood alteration' (Blaszczynski and Nower 2002, p. 493). Avoidance-focused coping diverts emotions associated with a stressful situation away from the situation, to 'escape', and temporarily lift mood (Folkman and Moskowitz

2004). The problem gambling participants tended to increase their gambling when coping with adversity, reflecting their emotional vulnerability.

Twelve problem gambling participants recalled exposure to gambling within their families during their childhood. Previous research has investigated the life trajectory of gamblers, indicating that early exposure to gambling within the family provides an environment that makes people vulnerable to later gambling problems and associated harms (Department of Justice 2012; Saugeres et al. 2012). People raised in families with parental gambling problems are more likely to develop a gambling problem themselves than people not raised with parental gambling problems (Dowling et al. 2010), with this increased risk found to be seven times higher (Winters et al. 2002). The current research confirms these findings, indicating that participants who had early exposure to gambling turned to gambling as a familiar activity at times of stress, thus increasing their vulnerability to gambling related harms.

Participants in both groups reported experiencing mental health issues such as depression, anxiety, bipolar and PTSD, with eight recreational gamblers and 19 problem gamblers discussing co-morbidity. However, experiencing mental health concerns did not lead to increased gambling activity for these eight recreational gamblers. Further, 12 recreational gamblers had not experienced mental health problems, supporting research that indicates that people with high resilience are prone to low levels of depression, stress and anxiety, and are less likely than those with low resilience to display addictive behaviour. Generally, people with high resilience are thought to have positive emotions, with such emotions influencing their responses to adversity; conversely, people with low resilience tend to demonstrate difficulties with regulating negative emotions (Bonanno et al. 2007). Many of the 19 problem gamblers who had experienced mental health concerns felt they were of major importance in their increased gambling activity. Further, the problem gambling group tended to make strong connections between experiencing significant life events and co-morbidity, indicating the complexity of these links.

Figure 1 depicts the relationships amongst significant life events, psychological co-morbidities, related social factors, coping mechanisms and levels of gambling, as found in this study. All 40 participants discussed experiencing one or more significant life events. The presence of co-morbidity was greater amongst participants in the problem gambling group. The recreational gamblers tended to have positive social influences such as strong social support and community networks, and they adopted positive task-focused coping mechanisms linked to their internal resilience which they drew on in times of adversity rather than increasing their gambling. Conversely, the problem gambling participants tended to have negative social influences such as weak social support, and increased their gambling to cope with a significant life event and/or co-morbidity. Many were exposed to gambling as children and returned to this familiar activity in times of stress.

Limitations

Several potential limitations are related to this study. First, self-reported data was utilised which relies on selective memories of participants and may therefore be subject to bias. However, qualitative research focuses on the interpretation of participants' experiences, and explores how people make sense of their world. Thus, self-report data is considered appropriate in qualitative research, providing rich multi-layered information about human experiences. Second, the sample was a small convenience sample, thus not enabling generalisation of the findings. Qualitative research does not, however, aim to generalise; rather, it provides a 'snapshot' into the lived experience of participants. Third, telephone interviews were used

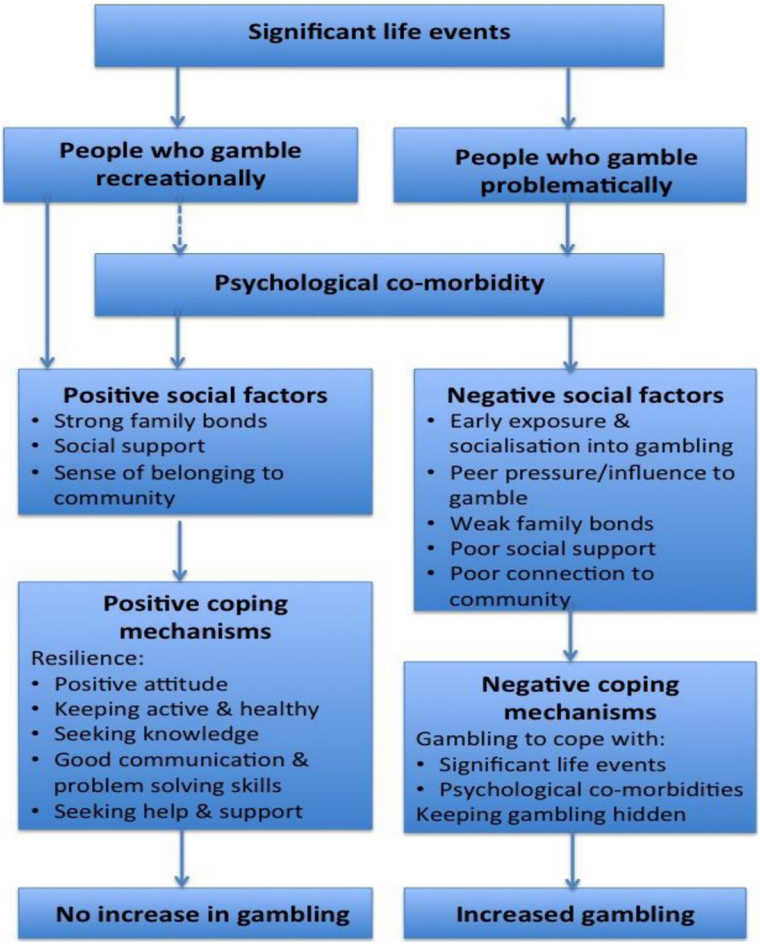

Fig. 1 A grounded theory framework of influences of significant life events, psychological co-morbidities, related social factors and coping mechanisms on gambling involvement

due to financial constraints, limiting additional information gained from body language and affect. However, telephone interviewing is a reputable method within qualitative research as it can enhance anonymity and may therefore increase disclosure.

Conclusion

The findings of this study emphasise the importance of having strong external social support and internal resilience when faced with adverse life events and mental health issues to enhance the likelihood of positive outcomes from adversity. Combining the concerns of significant life events, co-morbidity and social influences into a study of problem gambling has contributed to understandings about the role of various influences on the risk of gambling problems. This knowledge will help to advance prevention and treatment interventions in gambling. For example, understanding the intricate interplay of several co-occurring conditions, the stress

involved with coping with significant life events, and related social influences, enhances the opportunity for developing an integrated treatment approach for gambling problems. Promoting resilience, a protective factor that helps people to cope in the face of adversity, is an important target for treatment and prevention. The internal factors of resilience, such as self-confidence, healthy self-esteem, good-communication and problem-solving skills, and maintaining a positive outlook, and external factors such as support networks, provide a framework on which interventions can be grounded.

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